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NI 43-101 Technical Report

MINERAL RESOURCE ESTIMATE UPDATE ON THE CASTELO DE SONHOS GOLD PROJECT PARA STATE, BRAZIL

By

CSA Global Canada Geosciences Ltd

For:

TriStar Gold Inc.

Approved:

Daniel Wholley
Director

Report prepared for

Client Name	TriStar Gold Inc.
Project Name/Job Code	Castelo de Sonhos Gold Project, NI 43-101 Report TGRNIR01
Contact Name	Nicholas Appleyard
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Date and Signature Page

This Report titled "Mineral Resource Estimate Update on the Castelo de Sonhos Gold Project, Pará State, Brazil" for TriStar Gold Inc. with an Effective Date of 13 September 2017 was prepared and signed by the following authors:

["SIGNED AND SEALED"]
{*Dr. Adrian Martínez Vargas*}

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Dated at Toronto, ON
2 November 2017

Dr. Adrian Martínez Vargas, PhD., P.Geo. (BC)
Senior Resource Geologist
CSA Global Geosciences Canada Ltd

["SIGNED AND SEALED"]
{*Chris Campbell-Hicks*}

____

Dated at Perth, WA
2 November 2017

Chris Campbell-Hicks, FAusIMM, CPMet, MMICA
Senior Associate Metallurgist
CSA Global Pty Ltd

Report Effective Date:
13 September 2017

Certificates of Qualification

Dr. Adrian Martínez Vargas, P.Geo.

I, Adrian Martinez Vargas, PhD., P.Geo. (BC), do hereby certify that:

I reside at 1111-65 High Park Ave, Toronto, ON M6P 2R7.

1. I am employed as a Senior Resource Geologist with the firm of CSA Global Geosciences Canada Ltd located at 365 Bay St., Suite 501, Toronto, Ontario, Canada M5H 2V1.
2. I graduated with a degree in Bachelor of Science, Geology, from the Instituto Superior Minero Metalurgico de Moa (ISMM), 2000. I have a Postgraduate Specialization in Geostatistics (CFSG) MINES ParisTech, 2005, and a PhD on Geological Sciences, Geology, from the ISMM in 2006.
3. I am a Professional Geoscientist (P.Geo.) registered with the Association of Professional Engineers and Geoscientists of British Columbia (APEBC, Licence Number 43008).
4. I have worked as a geologist since my graduation 17 years ago, I have experience with precious and base metals mineral projects in Cuba and Canada, including Mineral Resource estimation.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that because of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I visited the Castelo de Sonhos Gold Project for one and a half days on August 17 and 18, 2017.
7. I am co-author of the technical report titled: "Mineral Resource Estimate Update on the Castelo de Sonhos Gold Project, Para State, Brazil" for TriStar Gold Inc. with an Effective Date of September 13, 2017, (the "Technical Report"). I am responsible for Sections 1-12 and 14-27 of the Report.
8. I have had no prior involvement with the property that is the subject of the Technical Report.
9. As of the effective date of the technical report, to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
10. I am independent of the issuer applying all the tests in section 1.5 of NI 43-101.
11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Effective Date: 13 September 2017

DATED this 2nd day of November 2017

["SIGNED AND SEALED"]
{*Adrian Martinez Vargas*}

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Adrian Martinez Vargas, PhD., P. Geo.

Certificate of Qualification

Chris Campbell-Hicks, FAusIMM (CP)

I, Chris Campbell-Hicks, BSc (Mineral Processing), FAusIMM (CP), MMICA do hereby certify that:

1. I am Senior Associate Metallurgist at CSA Global Pty Ltd, with a business address at 3 Ord Street, West Perth, Western Australia, 6005, Australia.
2. I am a graduate of Murdoch University, Perth, Western Australia, and hold a Bachelor degree, majoring in Mineral Processing (1992).
3. I am a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (FAusIMM CP, Member No. 110772) and a Member of the Mineral Industry Consultants Association (MMICA).
4. I am a practising process engineer and have practiced my profession continuously since 1978. My relevant experience for the purpose of the Technical Report is:
   - Operational experience on numerous mines in Russia, Kazakhstan, Mexico, RSA, Indonesia, Canada, Turkey, Fiji, Guinea, Ghana, PNG and Australia;
   - Process engineering experience on a large number of projects;
   - Metallurgical and process engineering input into numerous feasibility studies.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for Section 13 of the technical report entitled "Mineral Resource Estimate Update on the Castelo de Sonhos Gold Project, Pará State, Brazil" for TriStar Gold Inc. with an Effective Date of September 13, 2017, (the "Technical Report"). I have personally not visited the Castelo de Sonhos Gold Project.
7. I have not had prior involvement with the property that is the subject of the Technical Report.
8. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Sections of the Technical Report set out above contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.
9. I am independent of the issuer applying all the tests in Section 1.5 of NI 43-101.
10. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Effective Date: 13 September 2017
DATED this 2nd day of November 2017.

{SIGNED and SEALED}
[Chris Campbell-Hicks]

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Chris Campbell-HicksBSc (Mineral Processing), (FAusIMM - CP)

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1 Summary

This technical report ("Report") was prepared by CSA Global Canada Geosciences Ltd (CSA Global) at the request of Mr. Nicholas Appleyard, President and CEO of Tristar Gold Inc. ("TriStar" or the "Company"), to present and support the results of a Mineral Resource estimate update for TriStar's Castelo de Sonhos gold project ("Project"). This report has been prepared in accordance with Canadian Securities Administrators National Instrument 43-101 (NI 43-101), Companion Policy NI 43-101CP and Form 43-101F (Standards of Disclosure for Mineral Projects), Canadian Institute of Mining (CIM) Definition Standards on Mineral Resources and Mineral Reserves of 2014 and CIM Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines of 2003.

1.1 Property Description and Location

The Castelo de Sonhos project is located in south-western Pará State, Brazil, approximately 20 kilometres (km) north of the town of Castelo dos Sonhos. The town is situated on the main north-south BR163 highway that links Cuiabá, a major business city with a population of two million, and Santarém, an important port city on the Amazon.

The Project spans six contiguous mineral claims with a combined total area of 31,032 hectares (ha) reducing to 17,177 ha upon approval. Mineração Castelo dos Sonhos (MCDS), a Brazilian company 100% controlled by TriStar, holds the title on five of the claims. For the sixth claim, TriStar has priority in a bid process that will result in a new exploration permit.

1.2 Exploration

There have been two major periods of exploration at Castelo de Sonhos: from 1995 to 1996, when Barrick Gold Corp. (Barrick) held the mineral claims, and from 2011 to present, under TriStar. During both periods, exploration consisted of drilling, airborne geophysics, soil sampling, surface mapping and outcrop sampling.

Barrick completed 2,027 m of core drilling in 23 drill holes in 1996. Five drilling campaigns have been carried out at Castelo de Sonhos by TriStar consisting of 126 diamond drillholes and 133 reverse circulation (RC) drillholes. A total of 145 new drillholes were drilled from 2016, including the 133 RC drillholes.

1.3 Geology

The gold deposits in the Project area are paleo-placers slightly modified by low-grade metamorphism and occur within the central conglomerates of the Castelo de Sonhos formation. The mineralization was also modified by hydrothermal fluids associated with a subjacent granitic intrusion. Two styles of mineralization are present:

- Paleo-placer, with free grains of gold that were likely deposited along with the sediments;
- Remobilized gold associated with alteration, usually hematitic.

1.4 Mineral Resources estimation

This Mineral Resources estimate was prepared by Dr. Adrian Martínez Vargas, Senior Consultant, P.Geo., and full-time employee of CSA Global. Mineral Resources were estimated in Esperança South and Center, using all gold assays available by August 2017 and where drillhole spacing did not exceeded 100 m.

Mineral Resources were estimated within the conglomeratic band in 30 m x 30 m x 6 m panels with selective mining units (SMU) of 5 m x 5 m x 2 m. The volume of the panels was corrected by excluding the proportion above the topography. Lithology logs were regrouped in three codes, two corresponding to alluvial paleo-placer gold, and one representing remobilized gold. The proportions of each lithology were estimated in panels using categorical indicator kriging.

The amount of mineralized material and its contained metal over a set of cut-off grades in each lithology class were estimated in panels using uniform conditioning (UC). The total panel-tonnage and panel-metal were obtained by adding the tonnages and metal contents corresponding to each lithology. Average grades were obtained from the ratio panel-metal/ panel-tonnage.

Model validations consisted of visual validations on sections, comparison of gold grade statistics, comparison with an alternative estimation method, in this case inverse distance-cubed (ID^3) on SMU blocks, and by comparison of grade-tonnage curves calculated with global change of support. Intermediate results such as lithology proportion estimates and average gold grade in panels were also validated.

All Resources to a depth of 120 m below the ground surface, inside the conglomerate band, and within 100 m from drillholes were classified as Inferred; no Resources were classified as Measured or Indicated.

Mineral Resources are shown in Table 1. The effective date of this Mineral Resources estimate is 13 September 2017 and it was estimated above a reporting cut-off of 0.4 g/t Au. The reporting cut-off corresponds to the approximate marginal cut-off for an open pit with total operating cost (non-waste mining + processing + G&A) of US$15.00/t, metallurgical recovery of 98%, and a gold price of US$1,200/oz.

The stated Mineral Resources estimate is not materially affected by any known environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant issues, to the best knowledge of the authors. There is no known mining, metallurgical, infrastructure, or other factors that materially affect this Mineral Resource estimate, at this time.

Table 1: Mineral Resource estimate[1] for the Castelo de Sonhos gold project (with an effective date of 13 September 2017) above a reporting cutoff[2] of 0.4 g/t Au

Cut-off[2]	Classification[5]	Tonnage (Mt)	Grade (g/t Au)	Metal content[3] (Moz Au)
0.4	Inferred	31	1.3	1.3

[1] Numbers have been rounded to reflect the precision of an Inferred Mineral Resource estimate.

[2] The reporting cut-off corresponds to the approximate marginal cut-off for an open pit with total operating cost (non-waste mining + processing + G&A) of US$15.00/t, metallurgical recovery of 98% and a gold price of US$1,200/oz. These are Mineral Resources and not Reserves and as such, do not have demonstrated economic viability.

[3] The metal content estimates reflect gold in situ, and do not include factors such as external dilution, mining losses and process recovery losses.

[4] TriStar and CSA Global are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing or political factors that might materially affect these mineral resource estimates.

[5] Resource classification as defined by the Canadian Institute of Mining, Metallurgy and Petroleum in their document "CIM Definition Standards for Mineral Resources and Mineral Reserves" of 10 May 2014.

1.5 Conclusions

CSA Global is of the opinion that additional exploration is warranted on Castelo de Sonhos project and that TriStar has advanced the Project to a stage that warrants a Preliminary Economic Assessment.

1.6 Recommendations

CSA Global recommends:

1. Advancing the project to a Preliminary Economic Assessment. This will require:
   - Additional, predominantly infill, RC drilling in areas of Esperança South and Esperança Center that still have not yet been well drilled. Drill hole spacing would be a staggered 100 x 100 m grid pattern with holes offset by 50m on alternating sections;
   - Dry bulk density measurements on a range of materials, including the major mineralization types as well as the friable sandstone waste in the upper arenite;
   - Additional metallurgical testwork;
   - Initiating environmental and social baseline studies.

   The estimated cost for implementing these recommendations is US$2,500,000.

2. Updating the Mineral Resource estimate once all the assays from the 2017 RC program are available. This update should make use of the information from the optical televiewer and the petrophysical logs, which can improve lithology logging and prediction, and which can also serve as an excellent basis for building a reliable model of the internal stratigraphy of the conglomerate band.

   The estimated cost for implementing this recommendation is US$20,000.

3. Expand the exploration program to areas that have not yet been tested, for example, the conglomerates in the upper arenite, Esperança West and Esperança East, and the dip slope between the ridge line of Esperança South and the ravine to the northwest.

   The estimated cost for implementing this recommendation is US$500,000.

4. Include blank material that is not a pulp material in the external QAQC program, such as a coarse crushed (but not pulverized) quartz gravel.

   The estimated cost for implementing this recommendation is US$5,000.

2 Introduction

2.1 Issuer

TriStar is an exploration mining company based in Scottsdale, Arizona, and listed on the TSX Venture Exchange with symbol TSG. The Company's business focus is the acquisition, exploration and development of precious metal prospects in the Americas, including its focus on advancing the exploration of the Castelo de Sonhos project in the Tapajós Gold Province of Brazil's northerly Pará State.

2.2 Terms of Reference

Tristar commissioned CSA Global to complete a Mineral Resource estimate for its Castelo de Sonhos gold project in Brazil and an accompanying independent NI 43-101 technical report ("Report").

This Mineral Resource estimate and Report were prepared in accordance with the Canadian Securities Administrators National Instrument 43 -101 ("NI 43-101"), companion policy NI43-101CP and Form 43-101F1 (Standards of Disclosure for Mineral Projects - June 24, 2011), the Canadian Institute of Mining (CIM) Definition Standards on Mineral Resources and Mineral Reserves of 2014, and the CIM Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines of 2003.

The Mineral Resource estimate and all the sections of the Report, with exception of Section 13, were prepared by Dr Adrian Martinez (P.Geo., PEGBC), Senior Resource Geologist of CSA Global. Section 13 "Mineral Processing and Metallurgical Testing" was prepared by Mr. Chris Campbell-Hicks (FAusIMM), CSA Global Associate. The authors are Qualified Persons with the relevant experience, education and professional standing relative to the portions of the report for which they were responsible.

CSA Global conducted an internal check to confirm that there is no conflict of interest in relation to its engagement in this project or with TriStar and that there is no circumstance that could interfere with the Qualified Persons' judgment regarding the preparation of the technical report.

2.3 Sources of Information

The main sources of information used to complete this Report were the results of exploration and drilling campaigns completed at the Project, a geological map produced by TriStar, and the results of metallurgical testwork programs competed in 2014 and 2016–2017. Other documents used are listed in Section 27 (References).

2.4 Qualified Person Property Inspection

The Project was visited by Dr Adrian Martinez Vargas 1 ½ days on 17-18 August 2017. More details about the results of this personal inspection are provided in Section 12 (Data Verification).

3 Reliance on Other Experts

CSA Global has relied on TriStar for information on mineral claims location and status, surface rights, ownership, agreements and royalties explained in the Section 4 of this Report. CSA Global has not independently verified ownership or mineral title beyond information that has been provided by the Issuer. The Property description presented in this Report is not intended to represent a legal or any other opinion as to title.

4 Property Description and Location

4.1 Property Location

The Castelo de Sonhos project is located in south-western Pará State, Brazil, approximately 20 km north of the town of Castelo de Sonhos. The town is situated on the main north-south BR163 highway that links Cuiabá, a major business city with a population of two million, and Santarém, an important port city on the Amazon River (see Figure 1). The Project area is centered approximately at 8°12'07'' south, 54°59'20'' west.

Figure 1: The location of the Project in Brazil

Source: TriStar Gold, 2017

4.2 Brazilian Mining Law

On 25 July 2017, Brazilian President Michel Temer signed into law three provisional measures, referred to as MP 789, MP 790 and MP 791, that affect mining projects throughout the country. They took effect immediately, with Congress being allowed a reasonable period of time to review and amend them. Having begun exploration in 2011, TriStar was, up until these proposed changes, adhering to the following steps of the older system:

1. The entity (an individual or entity corporation) makes an application for the right to explore to the *Departamento Nacional de Produção Mineral* (DNPM), the federal government agency that oversees and regulates mineral exploration and mining activity in Brazil. If the area has no previous applicant, the priority would be granted to this person or entity.

2. After review of the application, the DNPM may grant an exploration permit with a validity period of three years, during which mineral exploration studies should be undertaken.
3. Before the end of this three-year period, an exploration report must be submitted to the DNPM, whether positive (if mineralization with economic value has been found) or negative (no success was obtained in the work). Alternatively, at the end of this first three-year term, the applicant can present a Partial Exploration Report, with a request for an extension of term for a further period of no more than three years. At the end of this extended term (if accepted), a Final Exploration Report (positive or negative) must be submitted.
4. When a positive Final Exploration Report is approved by the DNPM, the applicant (corporate only) has a one-year term to file a *Plano de Aproveitamento Econômico* (PAE) that demonstrates that the project is technically and economically viable, and that presents an implementation plan. This period may be extended through a request to the DNPM.
5. After approval of the PAE, a mining concession is granted by the Minister of Mines and Energy. In six months, the company must start the implementation plan, unless otherwise authorized by the DNPM. There is no expiry date for the concession. The mining concession is conditional upon obtaining the necessary environmental permits for the project.

Any steps taken by TriStar in the future will follow whatever proposed changes are approved by Congress.

The proposed new mining laws include:

- Royalty payable to the government has been changed from 1% NSR to 2% gross (subject to review);
- An initiative to align Brazil’s reporting codes with international reporting codes such as NI 43-101;
- The ability to extend the period during which geology and engineering studies can be done;
- Ending the possibility of a mineral concession being claimed by another party if the holder of the rights is late in filing certain reports;
- Specific guidance on mine closure; and changes to the schedule of reporting deadlines.

They also propose the creation of the *Agência Nacional de Mineração* (ANM), a new federal agency that will replace the DNPM. This change brings to the mining sector a regulatory and management model that Brazil has been using with success in the oil, energy and telecommunications sectors for more than two decades.

4.3 The Castelo de Sonhos Mineral Concessions

The Castelo de Sonhos project spans six contiguous mineral claims (see Figure 2) with a combined total area of 26,751 hectares reducing to 17,177 upon approval. MCDS, a Brazilian company 100% controlled by TriStar, holds the title on five of the claims. For the sixth claim, TriStar has priority in a bid process that will result in a new exploration permit.

Most of the gold resources on the Castelo de Sonhos plateau lie on the mineral concession shown as #1 on Figure 2 (claim number 850.329/2002), which had its final positive exploration report approved by the DNPM in April 2017.

For the concession shown as #2 (850.391/2016), its exploration licence is valid until August 2019, and can be renewed for an additional three years.

Concessions #3 (850.310/2011), #4 (850.309/2011) and #5 (850.784/2009) had their final exploration reports filed in August 2017. On filing of these reports, MCDS also proposed the area reductions shown on Figure 2.

The areas proposed to be relinquished are considered unnecessary for project development as they contained no mineralized conglomerate or soil anomalies.

Table 2 shows the change in the areas of these concessions if the DNPM accepts the area reduction proposals.

MCDS has applied for the exploration rights to the concession marked as #6 (850.193/1989) because it appears to host the western closure of the deposits. This application awaits a decision by DNPM, but MCDS has priority because this concession was part of the land package controlled by previous holders of the mineral rights on the plateau, who passed their rights to Brazauro and then TriStar.

Table 2: Mining concessions of the Castelo de Sonhos property

Map no.	DNPM no.	Current area (ha)	Proposed area (ha)	Current status
1	850.329/2002	3,786	3,786	Final exploration report approved
2	850.391/2016	1,000	1,000	First three-year exploration period
3	850.310/2011	1,000	589	Final exploration report filed
4	850.309/2011	1,000	284	Final exploration report filed
5	850.784/2009	9,965	1,518	Final exploration report filed
6	850.193/1989	10,000	10,000	Exploration licence to be issued

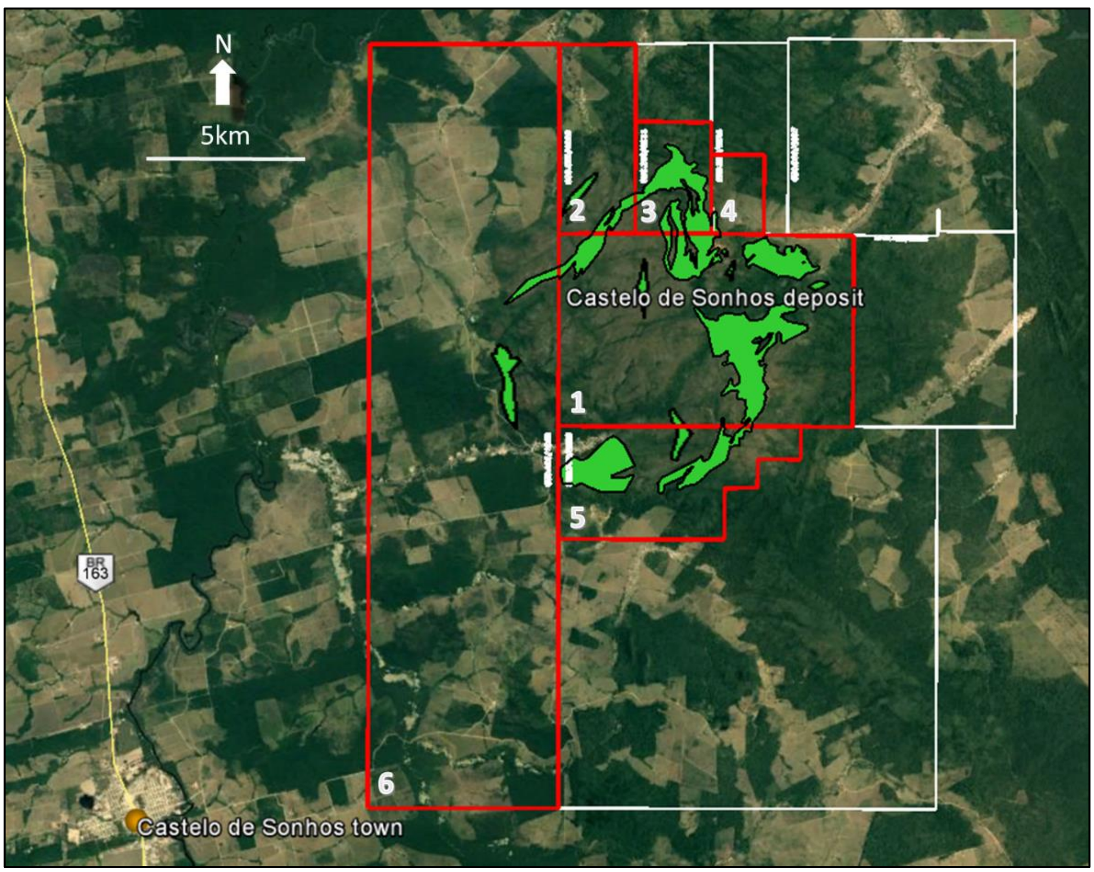

Figure 2: Mineral concessions for the project area (white outlines represent the original and current holdings; red is the reduced holdings yet to be ratified by the DNPM). Mineralized conglomerate band outcrop in green.

Source: Tristar Gold internal map, 2017

4.4 Surface Rights

Although surface rights belong to the Brazilian Federal Government, TriStar pays a nominal monthly rent to two local landowners for access to various parts of the property.

4.5 Tenure Agreements and Encumbrances

The reader is referred to Section 6.3 for a discussion of the Project ownership history.

In 2010, TriStar Mineração do Brasil Ltda, a wholly-owned subsidiary of TriStar Gold Inc., signed an option contract with then property owner, Mr. João Américo França Vieira.

The option called for land payments totalling $US 1.7 million and a minimum exploration expenditure commitment of US$4,000,000.

The property vendor retains a 2% NSR royalty, half of which can be purchased by TriStar at any time for a range of values based on the gold reserves (Proven + Probable) documented in a future NI 43-101 report:

- <2 million oz → US$5 million
- 2–3 million oz → US$6 million
- 3–4 million oz → US$7 million
- 4 million oz → US$8 million.

Should a gold deposit with Proven and Probable Reserves larger than 1 million ounces (Moz) be identified, the property vendor will receive an additional US$1 for each troy ounce of Proven or Probable Reserves beyond 1 million.

In addition, TriStar must pay to the property vendor US$3,600,000 out of production from the property over and above its royalty. At its option, TriStar may pay to the vendor US$1,500,000 on or prior to making a construction decision in lieu of the payment out of production.

The minimum exploration expenditure commitment of US$4,000,000 has already been met and in July 2016, TriStar announced it had completed its acquisition of 100% of Castelo de Sonhos with a US$800,000 cash payment and the issuance to the property vendors of 1,000,000 common shares of the Company, the final installment of the $US 1.7 million in land payments.

4.6 Environmental Liabilities and Permits

No significant environmental liabilities are known to exist at the Project site. TriStar submitted an Environment Control Report (RCA) to the State Environmental Authority (SEMA) and was informed that for exploration activities amounting to the continuation of core drilling, a permit was not required.

The environmentally protected area closest to the property is the Jamanxim National Forest, 45 km away.

All the drainages in the area are to the north toward the Amazon River. This puts the Project on the downstream side of the water supplies of the town of Castelo de Sonhos and any indigenous protected areas to the east.

4.6.1 Past Mining

Garimpeiros have been working the Project areas for decades with continued activity at the site by a small number of locals, now fewer than half a dozen. No environmental contamination related to the past or future activities is expected since the primary method of gold extraction used by the *garimpeiros* is gravity separation.

4.7 Other Significant Factors and Risks

Environmental, permitting, legal, title, taxation, socio-economic, marketing, and political or other relevant issues could potentially materially affect access, title or the right or ability to perform the work recommended in this report on the Project. However, at the time of this report, CSA Global is unaware of any such potential issues affecting the Project.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Topography, Elevation and Vegetation

The Castelo de Sonhos deposit sits on an incised plateau that rises several hundred meters above the plains and grasslands around Rio Curuá and its tributaries.

The plains have an average elevation of approximately 250 m above sea level while the plateau itself is approximately 550 m above sea level. The contrasting elevation between the plateau and the surrounding plains is a result of higher resistance to erosion of the arenites and conglomerates on the plateau.

The vegetation on the plateau is mostly South American savanna: small trees, bushes and grasses growing on a rocky soil; taller trees can be found near drainages (Figure 3, Figure 4 and Figure 5). On the surrounding plains, the vegetation is the typical Amazon rainforest, or grasslands that were deforested for cattle ranching.

Figure 3: Typical Amazon canopy with alluvial workings in foreground

Figure 4: Typical South American savanna canopy with the camp in middle-ground

Figure 5: Typical vegetation at Castelo de Sonhos project

5.2 Access to Property

The Project site is accessible year-round by dirt road from the village of Castelo de Sonhos, which lies on BR-163, the paved highway that connects Cuiabá, the capital of Mato Grosso State, to Santarém, a port city on the Amazon.

The 550 m airstrip at the Castelo de Sonhos field camp makes the site directly accessible by small aircraft from cities served by commercial airlines, like Alta Floresta (a 50-minute flight) or Novo Progresso (a 30-minute flight). Larger airplanes can land at the 1,100 m runway at the village of Castelo de Sonhos.

Figure 6: Cessna aircraft landing on airstrip at the camp

5.3 Climate

The region has a tropical monsoon climate, with most of its annual rainfall of about 2,000 mm falling during the December–May rainy season.

Mineral exploration may be conducted year-round; the Project location on the plateau with its good drainage minimizes the effect of the monsoon season. Mine operations in the region can operate year-round with supporting infrastructure.

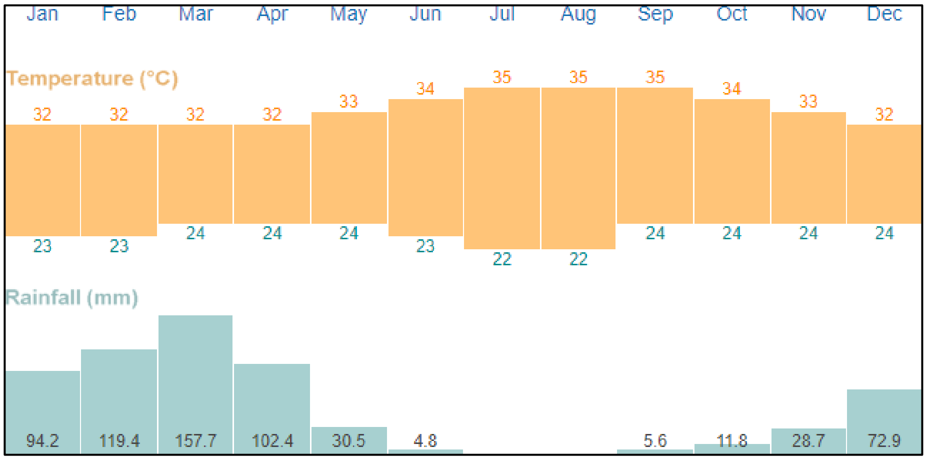

Figure 7: Monthly variations in average daily temperature highs and lows (top) and rainfall, from 1985 to 2015 for southern Pará State

Source: https://www.timeanddate.com/weather/@6319433/climate

5.4 Infrastructure

The village of Castelo de Sonhos has banks, telecommunications, mail, medical services, police, supermarkets, restaurants and hotels. From its time as a center of logging activity, it also has businesses able to service and repair heavy equipment and machinery.

Given the mining history of Pará State and the country in general, skilled and unskilled exploration and mining personnel are available in the region. Belem, the state capital is home to a university that has geology and mining education programs.

There is abundant water, all of it potable, on the Castelo de Sonhos plateau itself, in many creeks and streams that flow year-round.

At this time, it appears that TriStar holds sufficient mining claims necessary for proposed exploration activities on potential mineralized areas. At the time of filing the Final Exploration Report, the DNPM specifically requires that the concession holder submit a proposal for trimming down the concession boundary to fit tightly around the resource/reserve areas. This inevitably means that most mining operations enter their development phase needing to place infrastructure on adjacent land that they no longer control as part of their mineral exploration concessions. This requires negotiations with landowners (or the government if it's government land) at the time of development.

Figure 8: Castelo de Sonhos village shown along main highway BR163

A 138 kVA powerline runs along BR-163, bringing power from three small hydroelectric plants on the Curuá and Três de Maio rivers.

Agriculture (soy, sugarcane, fruit) and cattle ranching are the primary commercial activities in the surrounding region.

TriStar's exploration camp is powered by a diesel generator that runs refrigerators and freezers in the kitchen area, the satellite television in the bunk house and other heavy equipment such as the core saw. There is a satellite telephone onsite along with high-speed internet that provides excellent communication. There is also a wi-fi router located in the distal Esperança South area providing communication via online platforms. A shortwave radio system provides communication within the project area. The camp has sufficient space to house up to 20 people and a core shed has been constructed with capacity to store 35,000 m of core and 20,000 m of RC chips. A water well provides the camp with drinking water and septic tanks and a leach field provides for sewage waste disposal.

6 History

The Castelo de Sonhos project lies along the southeastern edge of the Tapajós gold province, the region where the biggest gold rush in Brazil´s history occurred.

From the 1960s to the mid-1990s, hundreds of thousands of artisanal miners (*garimpeiros*) mined 16–30 Moz of gold in a vast swath of south-western Pará State. In the Castelo de Sonhos area, an estimated 300,000 oz of gold was mined in small-scale operations (*garimpos*) that targeted the gravels in rivers and creeks that drain the plateau, along with some alluvial sediments near the base of the plateau.

Eventually, the low price of gold in the 1990s ended this period of prosperous gold mining for the *garimpeiros*.

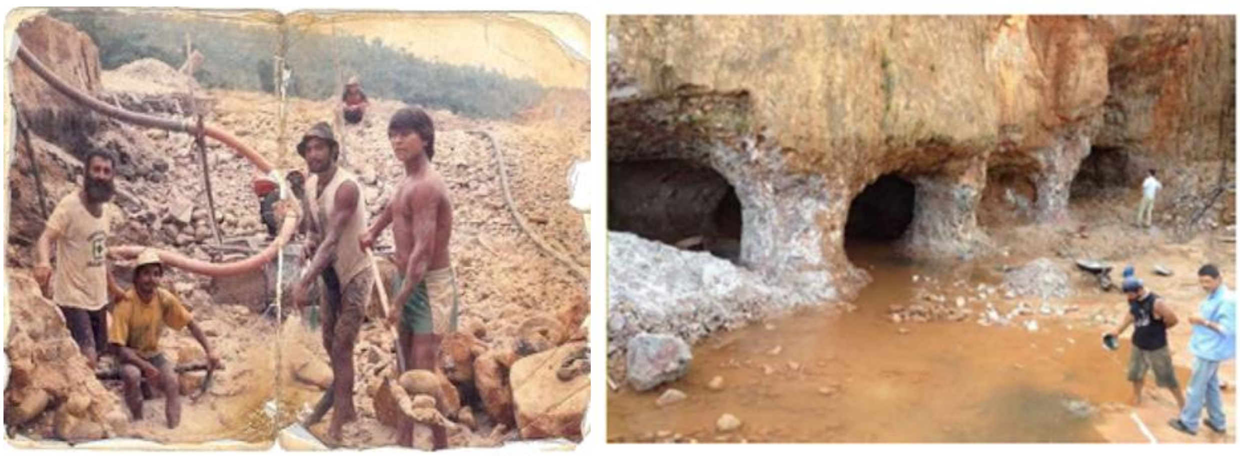

Figure 9 Artisanal miners or garimpeiros (left) and abandoned excavations or garimpos (right) at Castelo de Sonhos project

6.1 Property Ownership

By the mid-1990s, the region had gained the interest of major mining companies and from 1995 to 1997 Barrick Gold held the title for the mineral claims on the plateau. After conducting exploration including drilling and discovering the presence of mineralization in the hard rock on the plateau which confirmed the source of gold for the surrounding alluvial deposits, Barrick Gold ultimately decided to relinquish the project in 1997.

When Barrick left in 1997, *garimpeiros* began developing trenches, pits and small tunnels in and around the areas where Barrick had drilled. Although hand-dug, these surface workings were extensive and continuous, eventually spanning several kilometres of the conglomerate outcrop.

Limited by the increasing difficulty of extracting the gold from hard rock without the use of explosives and mechanized equipment, and by the difficulty of dewatering the trenches, pits and tunnels, the numbers of *garimpeiros* has dwindled to a few part-time solo operators today.

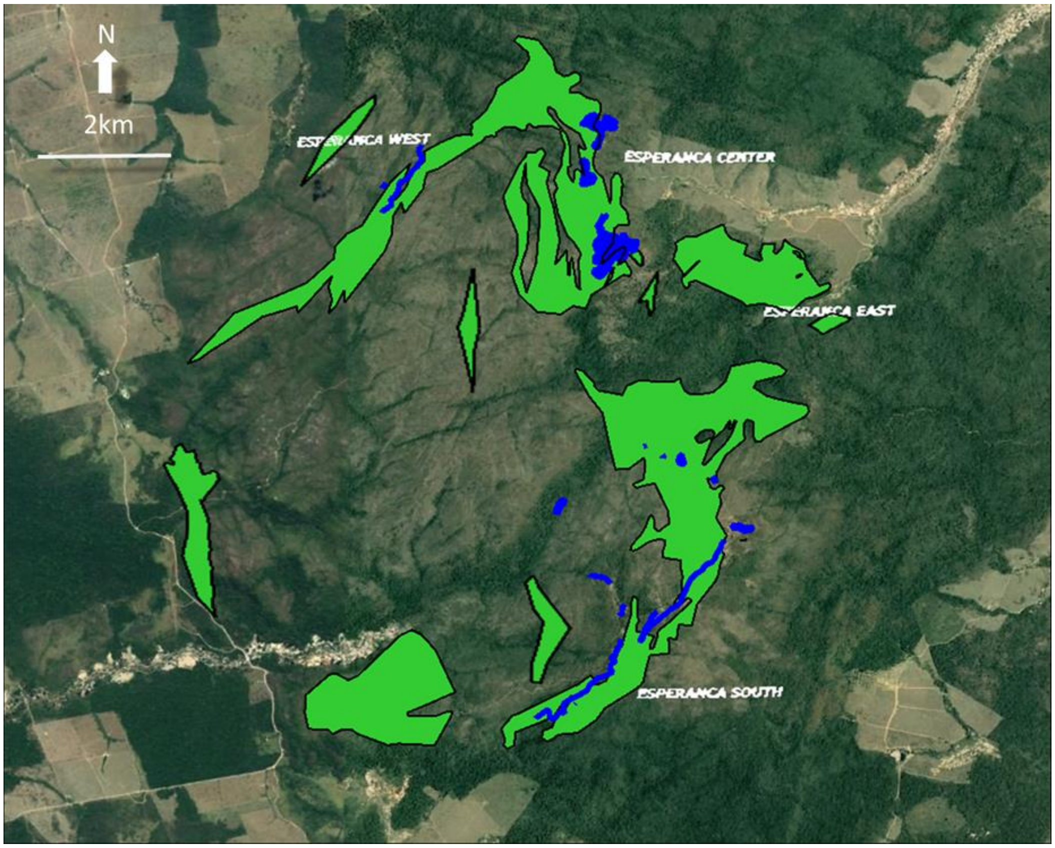

Figure 10: Plan map showing the continuity of the hand-dug garimpos (in blue) mirroring the mineralized conglomerate band outcrop (in green)

Source: TriStar Gold internal map, 2016

From 2004 to 2009, Osisko Brasil Mineração Ltda (Osisko) held the title for the mineral claims on the plateau without doing any new exploration. Control of Osisko was passed to the Brazilian property owner, when Osisko left Brazil in 2009.

In 2010, TriStar Mineração do Brasil Ltda, a wholly-owned subsidiary of TriStar, signed an option contract with then property owner, Mr. João Américo França Vieira, with terms and conditions as described in Section 4.5.

Following TriStar's airborne geophysical survey and the soil geochemistry study, six of the original Osisko claims were identified as having little or no potential and were returned to the DNPM.

6.2 Property Results – Previous Owners

Barrick (1995–1997) spent over US$1.5 million in exploration work that included soil geochemistry, stream sediment sampling, surveying, geophysical surveying, trenching and 23 diamond drillholes totaling approximately 2,027 m.

It was during this phase of exploration when the two significant gold-bearing zones, the Esperança South and Esperança Central zones, were identified. These are now the focus of much of today's exploration work.

In Esperança South, Barrick's geochemical survey defined a gold-in-soil anomaly approximately 5 km long and 1–2 km wide, defined by a 30 ppb threshold. The Esperança Central anomaly measures approximately 2.6 km x 500 m as defined by a 150 ppb Au threshold. The gold values found in the soil ranged from zero to 1,722 ppb Au. Both areas have coincident magnetic and radiometric anomalies.

Barrick's work was concentrated on the Esperança South target. Most of the Esperança South trenching (total of over 4,700 m) and drilling (22 drillholes totalling 2,027 m) focused on a 4 km segment of the anomaly. One additional hole was drilled in the Esperança Center anomaly. Although many of Barrick's trench and soil samples produced assays below the detection limit, many of them were well mineralized, with grades reaching 18 g/t both in drill hole samples and in trench samples. All of Barrick's trenches in the conglomerate outcrop produced consecutive runs of samples above 0.5 g/t, with the horizontal lengths of these well-mineralized composites ranging from 4 m to 77 m. All of Barrick's drillholes that encountered a significant length of conglomerates also encountered mineralization above 0.5 g/t. The only Barrick trenches and/or holes that did not encounter mineralization were those that did not target the conglomerates.

6.3 Historical Mineral Resource Estimates

In an undated Osisko report on Castelo de Sonhos, João Batista Taixeira summarizes the Project's gold potential as falling into one of three types: "tailings from the alluvial gold deposits mined by *garimpeiros*, supergene enriched gold mineralization and primary gold mineralization, probably occurring at depth." Taixeira provides semi-quantitative estimates of the total gold that may be present, using simple assessments of volume, tonnes and average grade that lead to the conclusion that approximately 900,000 oz of gold may be present in all three categories. The reader is cautioned that these estimates do not comply with NI 43-101 because: they have not been classified; the cut-off is not known; their geographic location is undocumented; and there was no Qualified Person identified. TriStar has never regarded this historical estimate as ever being current, and it has not been taken into account in any of TriStar's plans for project development. A Qualified Person has not done sufficient work to classify the historical resource estimates as current resource estimates. CSA Global and TriStar are not treating the historical estimate as current Mineral Resources and as such they should not be relied upon.

6.4 Previous Mineral Resource Estimates

In 2014, TriStar published a Mineral Resource estimate on the Castelo de Sonhos deposit in accordance with NI 43-101 regulations.

The 2014 resource estimate is presented below for historical reference only. This estimate is superseded by CSA Global's current 2017 Mineral Resource Estimate as stated in Section 14.

The 2014 drillhole database consisted of 143 holes drilled by TriStar and two by Barrick. Three-dimensional (3D) wireframes of the mineralization were developed from cross-sections, guided by assay grades and the general dip of the stratigraphy. Gold grades were estimated for 5 m x 5 m x 2 m blocks. Ordinary kriging was used to interpolate grades of 2 m composites that had been capped at 10 g/t. Classification of the estimated resources into "Indicated" and "Inferred" categories was based on drillhole spacing, with the 50 m x 50 m drilling in Esperança South being sufficient for "Indicated" resources. None of the blocks in either of the block models was classified as "Measured". Resources were reported inside a pit shell to ensure that the resources had reasonable prospects for economic extraction. Although the block models contain grade estimates for blocks outside the pit shells, these blocks are not included in the resource inventory.

Because this resource estimate relied on drillhole data, both for grade interpolation and development of wireframes, it was necessarily restricted to the areas that had been drilled by 2014, which covered only about

4.5 km of the total of 16 km of mineralized outcrop. Because it was reported inside a pit shell that reached a depth of only 70 m, it was restricted to near-surface mineralization.

The 2014 Mineral Resource estimate is summarized in Table 3 and Table 21. Since this Mineral Resource estimate was completed, an additional 12 diamond holes and 133 RC holes have been drilled over two campaigns. These holes were used by CSA Global to calculate the updated and current Mineral Resource estimate described in this Section 14 of this Report.

Table 3: 2014 Mineral Resources estimated at 0.40 g/t cut-off grade[1]

Target	Indicated			Inferred		
	M tonnes	Au (g/t)	Au (Moz)	M tonnes	Au (g/t)	Au (Moz)
Esperança South	2.8	2.03	0.18	0.8	2.41	0.06
Esperança Center				0.7	1.81	0.04
Total	**2.8**	**2.03**	**0.18**	**1.4**	**2.13**	**0.10**

[1] This is not a current Mineral Resource statement. Figures in this table were obtained from the 2014 NI 43-101 technical report and are superseded by CSA Global's current 2017 Mineral Resource Estimate as stated in Section 14. The authors of the current report (2017) did not verify this 2014 information.

7 Geological Setting and Mineralization

7.1 Regional Geology

The Castelo de Sonhos Formation is an isolated package of slightly metamorphosed sandstones and conglomerates which form a roughly circular plateau rising 300 m above the surrounding plains near the southern border of Pará State in Brazil. The plateau lies on the Amazonian Craton (Figure 11), ancient continental crust that was first formed three billion years ago and that grew as other continental crust was accreted to it during continental collisions. The Castelo de Sonhos plateau lies at the border between the Tapajós and Iriri-Xingu tectonic domains.

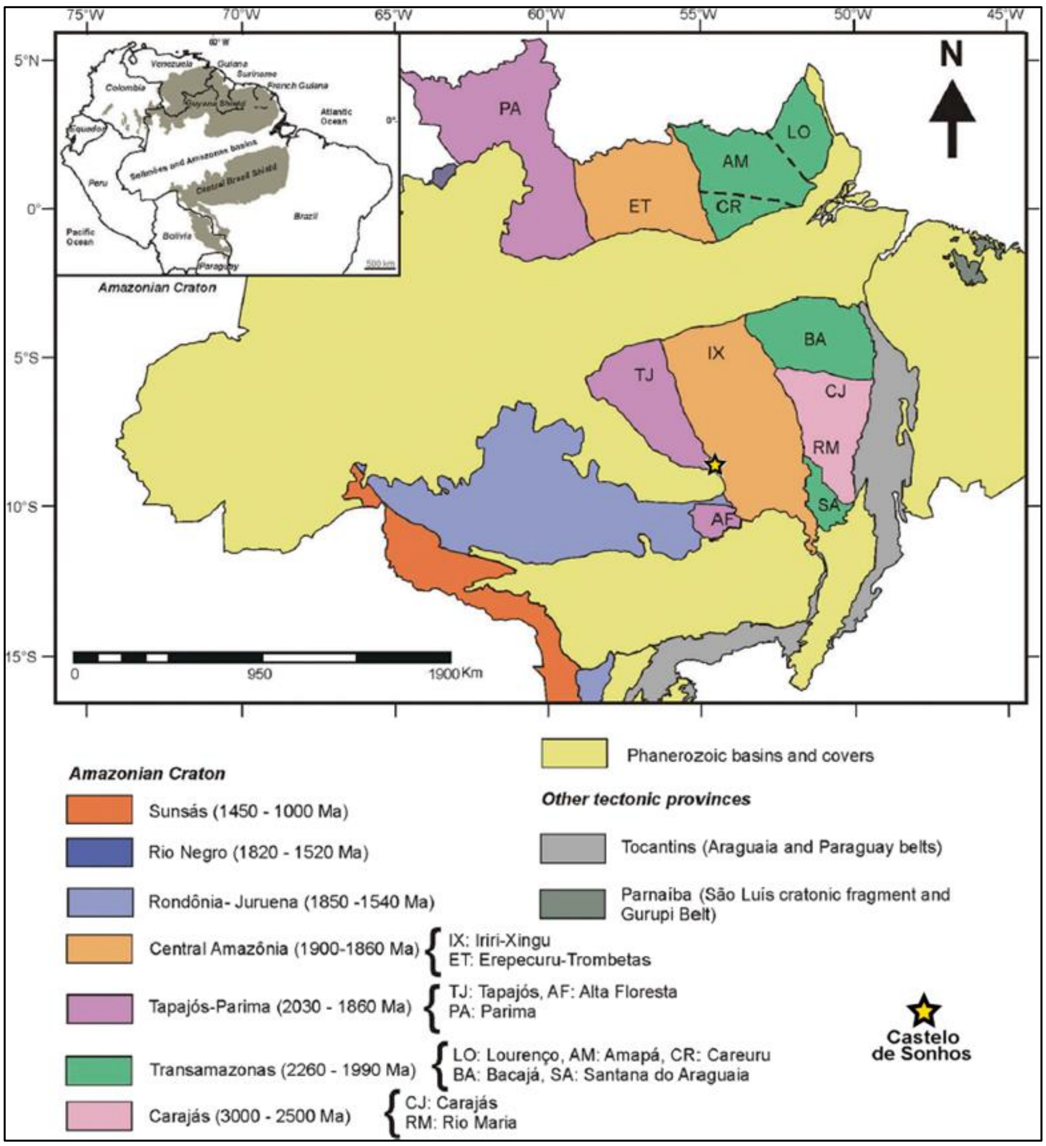

Figure 11: Amazonian Craton and its major geochronological domains

Source: Klein et al., 2017

The Castelo de Sonhos Formation is a relic of a sedimentary basin that likely formed near the coast, where sediments that were eroded from higher elevations accumulated in alluvial fans and, occasionally, aeolian dunes. U-Pb isotope dates from detrital zircons indicate that deposition of these sediments occurred 2.01–2.05 billion years ago in the Paleoproterozoic (Klein *et al.,* 2017), slightly before plate collision that accreted the continental rocks that now form the eastern edge of the Tapajós Domain. The Castelo de Sonhos conglomerates and sandstones have been gently folded, likely during the continental collisions, and slightly metamorphosed, likely during the intrusions of Maloquinha granites approximately 1.9 billion years ago.

7.2 Stratigraphy

Figure 12 shows a schematic column of the broad stratigraphy of the Castelo de Sonhos Formation. Most of the formation consists of medium to coarse-grained, cross-bedded sandstones that are described locally as metamorphosed arenites. At places within the formation, the size of the particles increases, and the formation becomes a proper conglomerate. In the stratigraphically vertical direction, fluctuations between sandstones and conglomerates were influenced by the rate of sediment accumulation, how close (or far) they were from the source where they eroded, and how mature they were (i.e. their size, roundedness and sorting). The gradual nature of these changes gives rise to a continuous spectrum, from sandstones (mA) to conglomeratic arenites (mAC) to conglomerates (mC). In the conglomerate, pebbles range in size from granules (~2 mm) to large boulders (~1 m). Where the pebbles touch each other, the conglomerate is described as clast-supported (mC1); where they do not touch each other, it is described as matrix-supported (mC2). Where the entire conglomerate consists of small granules, and has the appearance of a gritstone, it is described as a micro-conglomerate (mC3).

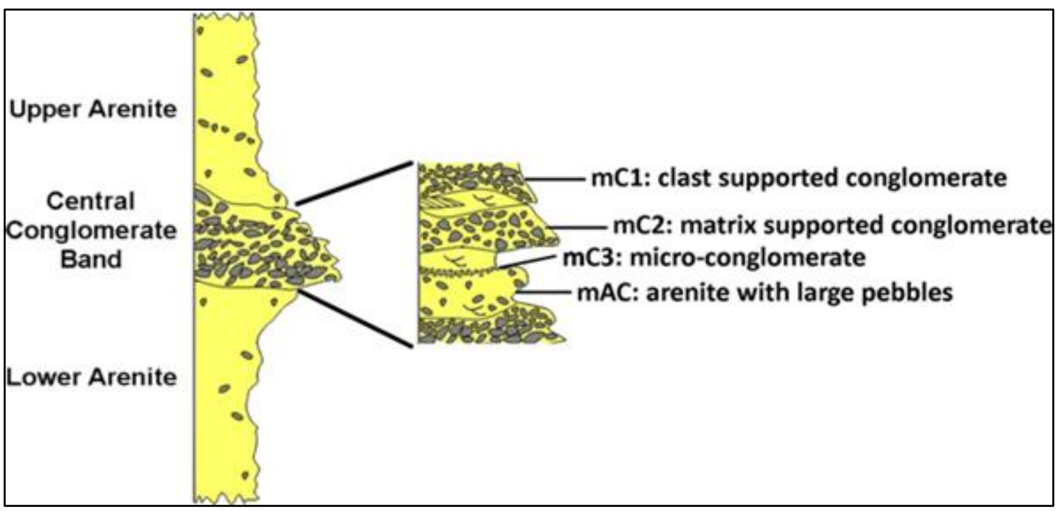

Figure 12: Schematic stratigraphy of the Castelo de Sonhos Formation

Most of the gold mineralization in the Castelo de Sonhos Formation lies in a central band where the various conglomerate lithologies dominate. At the base and top of this band, the conglomerates are interlayered with arenites, which become more frequent as one moves away from the conglomeratic band, either downward into the older rocks (the lower arenite) or upward into the younger rocks (the upper arenite).

The central conglomeratic band is 250–300 m thick; the upper and lower arenites are more than 500 m thick. At least one additional untested conglomeratic band, in the order of tens of metres thick, is known to occur in the upper arenite.

Figure 13 shows a schematic column of the stratigraphy within the main conglomeratic band, along with the conceptual model that summarizes the current understanding of the original depositional environment. The conglomerate band can be broadly divided into three units, with the cobbles being smaller and less frequent in the upper and lower units. The gradual progression in the stratigraphically vertical direction, from finer grained sediments to coarser is believed to reflect the sequence typically seen in alluvial and deltaic fans that build outwards as they also build upwards.

The vast majority of clasts in the conglomerate are from quartz veins; minor amounts of the pebbles consist of banded iron formation, quartzite, tourmalinite and, less frequently, metavolcanics. Significantly, no clasts of granite or andesite have ever been seen, indicating that these rocks, which lie beneath the Castelo de Sonhos Formation, are due to intrusions that post-date the sediments. A few of the pebbles and cobbles are composed of the Castelo de Sonhos Formation itself, indicating that successive lobes of the alluvial fan have sometimes scavenged and reworked older lobes beneath them.

Structural deformation of the sedimentary rocks (discussed below) removes any possibility of establishing an absolute sense of the original paleo-current directions. But trough cross-bedding in the sandstones and pebble imbrication in the conglomerates both establish that the paleo-current was from the northeast to the southwest in today's orientation of the plateau (Karpeta, 2016; Lipson, 2016).

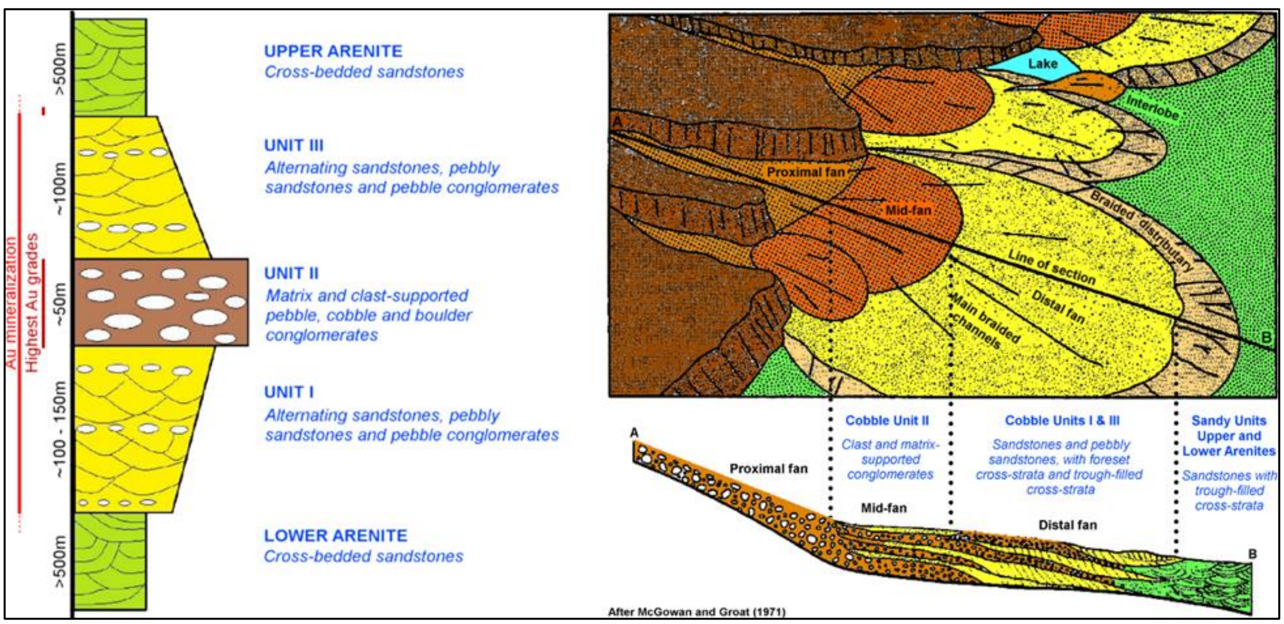

Figure 13: Schematic stratigraphy of the main units within the central conglomeratic band of the Castelo de Sonhos Formation, and conceptual model of the depositional environment

Source: Karpeta, 2016, after McGowan and Groat, 1971

7.3 Metamorphism and Structural Deformation

As the continental crust of the Tapajós Domain accreted from the west, the foreland basin closed, and the sedimentary rocks of the Castelo de Sonhos Formation were intruded by granites and an andesite between 1.9 and 2.0 billion years ago. The sedimentary rocks were metamorphosed by heat from these intrusive events, and by hydrothermal fluids driven upward from the intrusions. The metamorphism was low grade, and left the original sedimentary fabric apparent (Quieroz, 2015).

The outcrop of the conglomerate band approximately follows the rim of the plateau, its arcuate shape being the result of folding and tilting of the alluvial fan from its original flat-lying orientation (Figure 14); the axial plane of the fold runs northeast to southwest through the nose at the north end of Esperança Center. The cross-section in Figure 14 shows an interpretation of the shape of the folded conglomerate band. Within the areas where drilling has occurred, and where most of the *garimpos* are located, the hinge-line of the fold appears to plunge to the southwest, but the fold may actually close on the less-studied west side of the plateau, forming a bowl-shaped structure whose western limb is slightly overturned (Lipson, 2016). In Esperança South, bedding dips 25–35° to the northwest. On the north-south limb of Esperança South, in Esperança East and in Esperança Center, the dip is slightly shallower (20–30°) and to the west. The bedding dip begins to steepen at the nose of the fold at the north end of Esperança Center, reaching 50–60° degrees at the north end of Esperança West, and now dipping to the southeast. Bedding becomes nearly vertical as one moves to the south along Esperança West and becomes slightly overturned in outcrops on the far western edge of the plateau.

Two major faults offset the conglomerate band on the eastern side of the plateau. Although these are interpreted as strike-slip faults on Figure 14, regional stress considerations make it more likely that these are principally dip-slip faults, with the Esperança East block being down-dropped and the apparent eastward displacement being a consequence of downward movement of a band that dips to the southwest.

Geological characteristics that reflect stress and strain, such as shearing in mylonites and pebble elongation in conglomerates, are all approximately aligned in the same direction, sub-parallel to the faults that offset Esperança East.

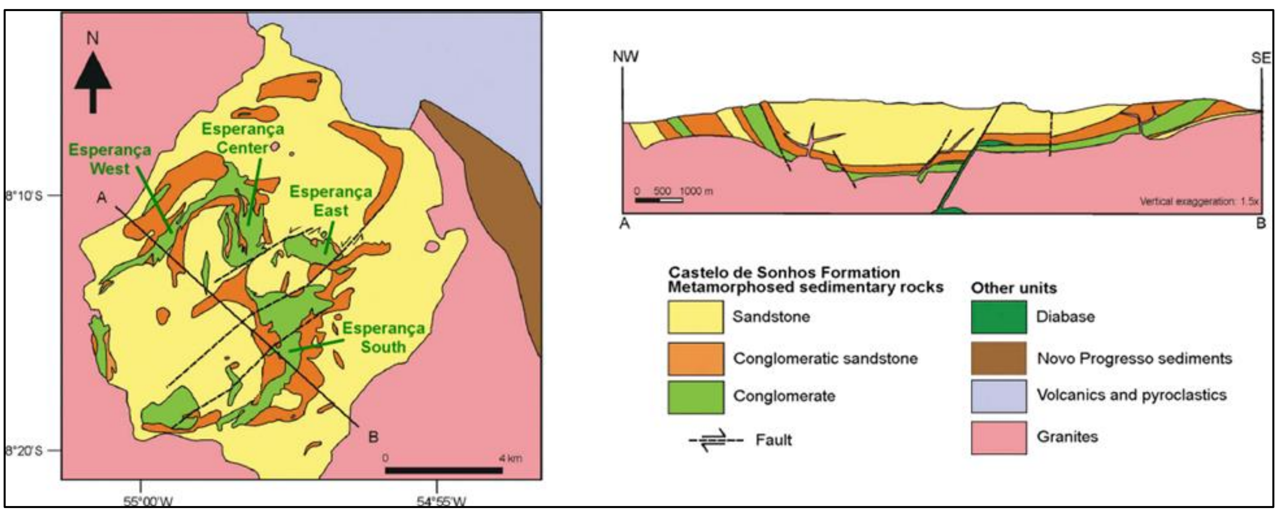

Figure 14 Map and cross section of the bedrock geology of the Castelo de Sonhos plateau

Source: Adapted from Mello, 2014; and Klein et al., 2017

7.4 Alteration

Hydrothermal alteration events affect much of the mineralized conglomerate band. The most widespread of these are silicic and hematitic alteration, both of which can, in places, be intense. Other alteration minerals that are less widespread and generally less intense include sericite, muscovite, fuchsite and epidote.

Much of the silicic alteration was likely drawn from quartz in the sediments that was precipitated a short distance from where it was dissolved. Much of the iron must have been sourced from the underlying intrusions, traveling upward along fractures in fluids, occasionally forming visible dikes that penetrated the sediments. The lack of chilled margins on the dikes indicates that the temperatures were low when they were emplaced.

As granitic dikes have been observed in the conglomeratic band, it is assumed that the underlying granitic intrusion probably removed the deeper parts of the bowl-shaped conglomeratic band; but this has not been directly observed in any drillholes, most of which are relatively shallow. The deepest hole, drilled in the center of the plateau, reached a depth of 500 m and remained entirely in the upper arenite without ever reaching either the top of the conglomerate band or the intrusive granite.

7.5 Mineralization

Gold occurs as free grains and flakes of various sizes, from sub-visible (less than 100 microns) to highly visible. In the near-surface workings dug by local artisanal miners in the late 1990s and early 2000s, supergene enrichment creates nuggets that can reach a few centimetres in size.

The two predominant styles of mineralization are:

1. Paleo-placer: Free grains of gold that were likely deposited along with the sediments. In core these can be seen in the matrix of the conglomerate, sometimes in heavy mineral bands.
2. Remobilized: Gold associated with alteration, usually hematitic alteration. Free grains of gold have been observed in hematite-filled fractures, and as thin films plated onto fracture surfaces.

As shown on the left side of Figure 13, gold mineralization occurs throughout the conglomeratic band. Although there are many barren samples within the conglomerate, there are gold grades above 0.5 g/t in almost every drill hole that penetrates more than half of the stratigraphic thickness of the central conglomeratic band. Gold grades tend to be higher in the central cobble unit, often reaching several grams per tonne. The lowest grade encountered in drilling to date is below detection limit; the highest grade encountered in drilling to date is a 38 g/t assay over a 2 m interval. The existence of gold in heavy mineral bands, and its tendency to be more frequent in the proximal rocks are consistent with the view that most of the gold in the conglomerate band was deposited along with the sediments.

Where gold mineralization extends into the upper and lower arenites, such as the interval of 5–10 g/t mineralization seen at the base of the upper arenite in several Esperança South drillholes, this is understood to be the result of remobilization caused by hydrothermal fluids. This remobilized gold in the arenites, along with direct observations of gold in direct association with hematite-filled fractures in the conglomerates, confirms that some of the gold within the conglomerate band must also be remobilized. The low temperatures of dike emplacement, the low grade of metamorphism, the difficulty of keeping gold in solution, and the close proximity of the remobilized gold in the arenites to the conglomerate band all support the view that remobilized gold did not travel far from where it was originally deposited as paleo-placer gold. There is currently no evidence that any of the remobilized gold has migrated more than a few tens of metres.

The strike length of the mineralized conglomerate is approximately 16 km; samples from outcrops and workings along the entire length of this band return both barren samples and well mineralized samples. The true width of the central conglomerate band is 250-300 m at surface, the apparent width is close to true width in Esperança West, where the dip is vertical, and is approximately three times the true width in Esperança Center, where the dip can be as low as 20°. The true depth of mineralization is unknown since the deepest parts of the conglomerate have never been encountered in drilling, but are known to be at least 500 m from surface in the center of the plateau. In drill holes, well mineralized samples (above 4 g/t) have been encountered at depths of 300 m. The current mineral resource estimate spans the entire width of the conglomerate band (250-300 m true width), but is restricted in its strike length by the availability of drilling and by the decision to report resources to a depth of only 120 m. Some of the blocks on the edge of the current resource model are well mineralized, leaving the model open in the strike direction and down dip.

The garimpeiros followed high-grade reefs very closely, with their hand-dug trenches stepping over wherever faults disrupt the continuity of the reefs they were mining. The hand-dug garimpos show that the continuity of mineralization is very strong at surface, and to depths of several tens of metres where the garimpeiros dug tunnels to follow gold reefs at the base of their trenches. Many of the individual garimpos are more than 100 m in length, between offsetting faults. The longest of the garimpos extends unbroken for more than 500 m in length. With the surficial weathered layer being very thin (1 to 2 metres), almost all the garimpos, including all the longest ones, are continuous in fresh unweathered rock, so it is assumed that the 100-500 m continuity of high-grade zones seen in the garimpos is typical of the continuity of mineralization in the near-surface region covered by the current resource block model.

7.6 Mineralization Thicknesses and Orientation

7.6.1 Esperança South

The mineralization in Esperança South is hosted in a series of stacked metaconglomerate beds striking north-south or northeast-southwest and dipping west, or northwest, at 30° to 35°, with thicknesses of individual mineralized reefs ranging from 2 m to 20 m. The mineralized reefs in Esperança South are thinner and higher grade than Esperança Center.

7.6.2 Esperança Center

The mineralization is hosted in a series of beds, striking north-south and dipping 20° to 30° west. Thicknesses of individual mineralized reefs range from 1 m to 20 m. Although the highest grades in Esperança South are higher than in Esperança Center, it is Esperança Center that has the higher average grade because it has far fewer very low-grade intervals. With more of the grade distribution lying close to an average of 0.2 g/t, the thickness of mineralized horizons in Esperança Center increases as the cut-off used to define a significant interval is lowered. At cut-offs near 0.2 g/t, there are many thick intervals, some exceeding 50m, in Esperança Center.

8 Deposit Types

The gold deposits on the Castelo de Sonhos plateau are classified as modified paleo-placers (Frimmel, 2005), mineral deposits in which free gold grains accumulated in ancient gravels that were subsequently slightly modified by low-grade metamorphism.

Although the best-known paleo-placer is the Witwatersrand in South Africa, which is 2.6 to 2.8 billion years old, better analogs of Castelo de Sonhos are Tarkwa in Ghana and Jacobina in Brazil, all of which formed 2.0 to 2.1 billion years ago near the coast of a southern supercontinent referred to in the technical literature as Nuna (Eglington, 2015). Table 4 and Figure 15, which summarize the geological characteristics of the three deposits, show that Castelo de Sonhos is much more similar to Tarkwa than it is to Jacobina. This is due to their proximity at the time their sediments accumulated.

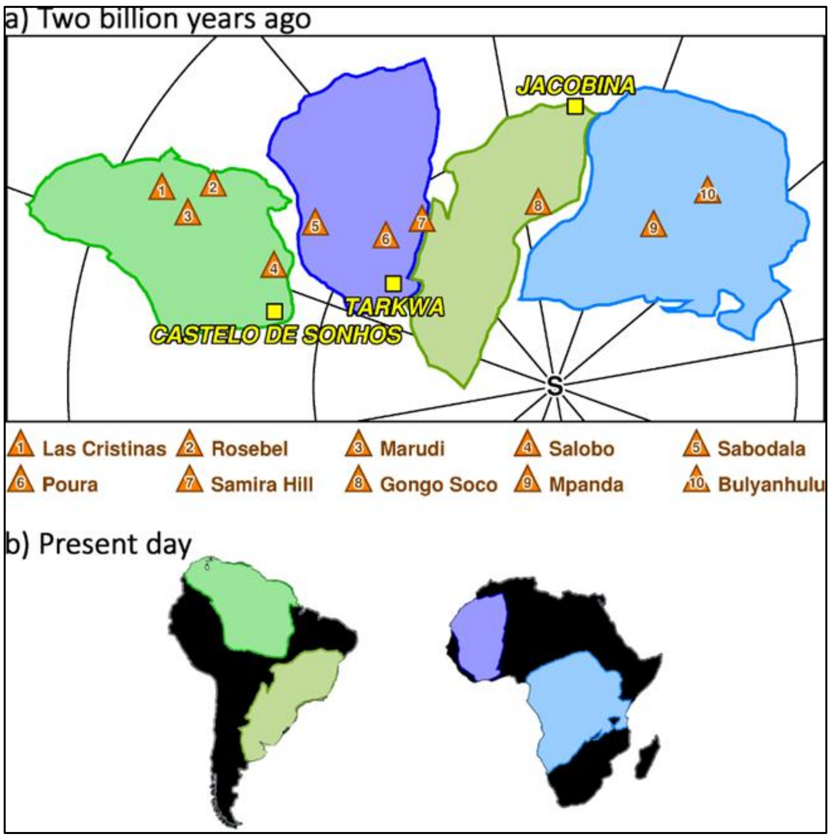

Figure 15: (a) Map of the Nuna super-continent 2 billion years ago, with locations, at that time, of 10 gold deposits that are at least 2.1 billion years old – the S marks the location of the South Pole when Nuna formed; (b) The modern positions of the continental crust that comprised Nuna

Source: Eglington, 2015

Table 4: Geological characteristics of Castelo de Sonhos and other modified paleo-placers

	Witwatersrand	Tarkwa	Jacobina	Castelo de Sonhos
Age	2.6 to 2.8 Ga	2.1 Ga	2.0 Ga	2.0 to 2.1 Ga
Conglomerate hosted	Yes	Yes	Yes	Yes
Silicification	Yes	Yes	Yes	Yes
Fuchsite in quartzites	Yes	Yes	Yes	Possibly
Carbon	Yes	No	Yes	No
Hematite	No	Yes	Yes	Yes
Magnetite	No	Yes	No	Yes
Pyrite	Yes	No	Yes	No
Uranium	Yes	No	Yes	Anomalous in footwall
Cross-bedded quartzites	Yes	Yes	Yes	Yes
Mineralization thickness	0.1 to 3 m	Up to 8 m	1 to 10 m	1 to 20 m

9 Exploration

9.1 Exploration Program

There have been two major periods of exploration at Castelo de Sonhos: from 1995 to 1996, when Barrick held the mineral claims, and from 2011 to present, under TriStar.

During both periods, exploration consisted of drilling (summarized in Section 10 – Drilling), airborne geophysics, soil sampling, surface mapping and outcrop sampling, as summarized in Table 5.

Table 5: Summary of exploration work completed on the Castelo de Sonhos property

Year	Company	Task carried out by:	Work completed
1995 to 1996	Barrick	Barrick staff	Soil/rock sampling
			Stream sediment sampling
			Trench sampling
		SETA	Core drilling
		Barrick staff	Tracks opened for geochemical soil sampling
		Satplan Ltda	Topography
		Geomag/Aerodat Inc	Airborne geophysics (mag/gamma) 200 m spacing
2011 to present	TriStar	TriStar Staff	Surface mapping
			Geochemical sampling
			Soil/rock sampling program
		Fugro – Lasa Prospecções S.A.	Airborne geophysical survey (mag/gamma) 200 m spacing
		Layne do Brasil	Core drilling
		TriStar staff	Exploration target range
		Geodsedna/GeoLogica	RC drilling
		DGI Geoscience/AFC Geofisica	OTV/downhole petrophysics
		Rael Lipson/Paul Karpeta	Detailed sedimentological mapping
		Satplan Ltda	Topography

9.1.1 Barrick (1995 to 1996)

The exploration campaign undertaken by Barrick proved helpful to TriStar for planning and executing future exploration programs. The available data from Barrick's geochemical assays, geophysical maps and geological mapping compared well with TriStar's versions of similar data, and were deemed reliable and trustworthy. However, many of the Barrick drillhole collars were excavated over time by *garimpeiros* who used the strategic locations of the drillholes as indicators for mineralization. Two of these collars can still be located in the field today. The Barrick campaigns included collection and analysis of almost 700 stream sediment samples.

9.1.2 TriStar (2011 to Present)

In 2011, TriStar constructed the field camp and restored the airstrip and access roads.

Since 2011, TriStar has completed soil sampling, geological mapping and rock chip sampling programs. In addition, various complementary studies on structure, lineament analysis, satellite imagery and petrology were undertaken.

Geochemical Soil Sampling

The soil sampling programs covered the majority of the claims deemed to have good exploration potential and were completed on a systematic 100 m x 50 m grid ultimately covering the whole conglomerate outcrop (see Figure 18). In areas where the terrain was adjudged to be less likely to contain mineralization, the spacing between samples was increased. A total of 7,529 samples were taken and sent to various labs for gold analysis.

Mapping

Early mapping of the area was completed by TriStar geologists and revealed a band of metaconglomerate outcropping on the Project concessions for 16 km in a horseshoe shape (Figure 18). The resulting horseshoe shape is due to the original flat-lying fan of sediments undergoing gentle folding and faulting.

In 2016 and 2017, Dr Rael Lipson and Mr. Paul Karpeta were contracted by TriStar to assist in developing an understanding of the evolution of the Castelo de Sonhos deposit and the factors that control and influence gold mineralization on the plateau. Dr Lipson and Mr. Karpeta are both geologists with extensive experience on paleo-placer deposits, including the strongly analogous Tarkwa deposit in Ghana. They identified detailed mapping of sedimentary structures as one of the cornerstones of a coherent and consistent geological model for Castelo de Sonhos, and each spent several weeks in the field, acquiring data across the plateau on paleocurrent directions (from trough cross-bedding and pebble imbrications), pebble elongations, foliation and bedding orientations and spatial variation in statistics of pebble sizes.

Geophysical Surveys

TriStar contracted Fugro-Lasa S.A. (of Rio de Janeiro) to complete an airborne magnetic and radiometric geophysical survey to cover all areas of the Castelo de Sonhos project site. The survey covered over 7,000 km of flight lines at an altitude of 100 m. The data obtained allowed for the generation of nine different maps: residual magnetic field, analytical signal and residual magnetic field, first vertical derivative of the residual magnetic field concentrations of radiometric channels potassium, uranium and thorium, total count, ternary radiometric channels and digital terrain model.

Grids

Historically, all survey data acquired on the project are UTM coordinates using the SAD69 datum. In 2017, the Brazilian government mandated the use of SIRGAS 2000 coordinates for all federal government reports. This directive covers reports provided to the federal DNPM, which regulates mining activity in Brazil. TriStar continues to use UTM/SAD69 coordinates for Castelo de Sonhos project work and, when reporting to the federal government, converts to SIRGAS 2000.

Geophysical Downhole Surveying and Optical Televiewer (OTV)

In 2017, TriStar completed a borehole geophysics and OTV program on a selection of the diamond core drillholes (Figure 16) and RC holes (Figure 17). AFC Geofisica, a Brazilian company based in Porto Alegre, were contracted to measure natural gamma, resistivity, temperature, fluid conductivity and sonic velocity. DGI Geoscience, a Toronto-based company, surveyed the drillholes using Advanced Logic Technology's OTV. They also measured the magnetic susceptibility and downhole orientations of the drillholes.

The holes were selected based on their availability and strategic locations along strike and intersections of zones of good gold mineralization. A number of holes were not accessible due to blockages.

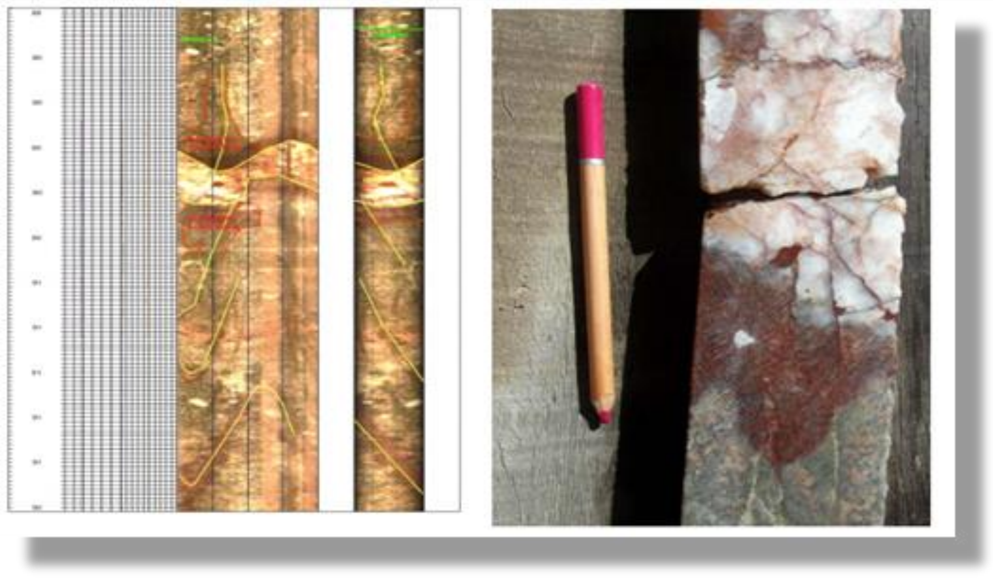

Figure 16: OTV image of a diamond hole compared with actual core from same interval

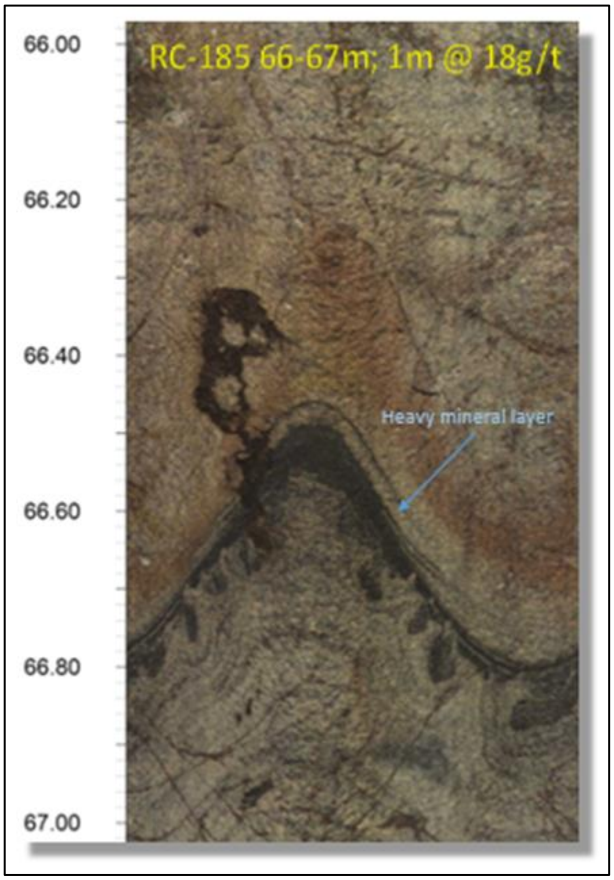

Figure 17: Example of OTV image in an RC drillhole section

9.2 Exploration Target Range

In 2016, TriStar reported an exploration target range for the Castelo de Sonhos project so that the investing public would have access to the technical basis for the Company's belief about the Project's ultimate potential. The Company's NI 43-101 report filed on SEDAR in March 2016 contains a detailed description of the methodology used to establish this exploration target range.

The assessment of the exploration target range for Castelo de Sonhos used a quantitative approach that integrated the available drillhole and geological information to produce a family of equally likely scenarios that established distributions for tonnage, grade and metal content. Following the conventional use of such distributions, the 10^{th} percentile (P10) defines a pessimistic case and the 90^{th} percentile (P90) defines an optimistic case.

The P10–P90 range for the exploration target at Castelo de Sonhos, rounded to reflect the inherent uncertainties, is shown in Table 6.

Table 6: Exploration target P10–P90 range at Castelo de Sonhos

Parameter	P10	P90
Tonnage (Mt)	50	84
Gold grade (g/t)	1.3	1.6
Metal content (Moz)	2.1	4.3

These ranges are conceptual in nature since the Castelo de Sonhos project requires further drilling and surface sampling to validate the geological and statistical assumptions used. Although all the technical assumptions are supported by the spatially limited drilling and available geological data at the time, further drilling may challenge these assumptions.

9.3 Interpretation

The TriStar soil samples show that anomalous gold values over 50 ppb can be traced continuously for 16 km along a horseshoe-shaped band (Figure 18). The TriStar soil sampling campaign confirmed and enhanced the anomalies identified by Barrick as their two significant targets: Esperança South and Esperança Center. It also revealed two additional targets: Esperança East and Esperança West.

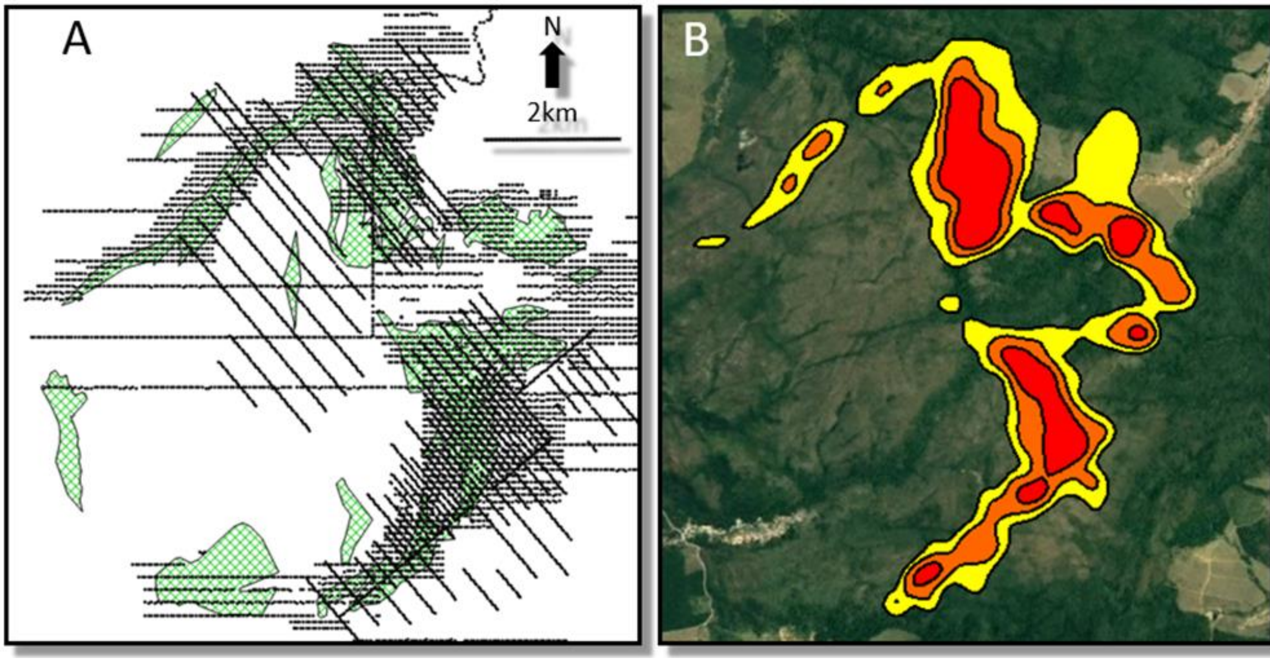

Figure 18: Soil sampling program (A) vs results (B). Image A shows conglomerate band outcrops in green hatching and soil sample locations in black dots. Image B shows soil anomalies of gold concentration; in yellow 50 ppb Au, orange 100 ppb Au and in red 200 ppb Au

Source: Tristar Gold internal map, 2017

Surface mapping established that the soil anomaly, defined as being above 50 ppb, almost perfectly tracks the outcrop of the conglomeratic band, as shown in Figure 18. Outside the conglomeratic rocks, and the alluvials in rivers and creeks that drain the plateau, the background gold grade in the soil is below 1 ppb.

The strike and dip of bedding showed that the shape of the conglomerate band is consistent with that of a syncline plunging to the southwest, with an axial plane that dips to the northwest. The tilt of the axial plane causes the Esperança West limb of the conglomerate band to appear narrower on the surface than the Esperança South limb.

Geophysical surveys assist with the delineation of the broad shape of the conglomerate band and may indicate a secondary, thinner band of conglomerate that sits in the upper arenite, several hundred metres above the main band. In the locations where geophysics suggests a secondary band of conglomerate in the upper arenite, surface reconnaissance has confirmed the presence of conglomerates in outcrops. This secondary band has yet to be tested with drillholes, and does not contribute to the current Mineral Resource estimate.

The OTV returned high quality images from inside the RC holes; this allows for accurate logging and structural measurement of all downhole features. The data also confirms that the magnetic susceptibility log does correlate with heavy mineral layers, and, in places, also with gold grade; this is likely a reflection of the association of different types of heavy particles in a paleo-placer environment. If this association persists over large regions, magnetic susceptibility may have a beneficial role not only in making resource and reserve estimates more reliable, but also in improving grade control.

10 Drilling

Five drilling campaigns have been carried out at Castelo de Sonhos by TriStar. The first four, 2011, 2012, 2014 and 2016 were all diamond drilling, and the 2017 campaign consisted entirely of RC drilling. Since TriStar took control of the property, 156 diamond holes (19,041 m) and 133 RC (15,019 m) holes have been drilled.

10.1 Diamond Drilling

Prior to TriStar, Barrick diamond drilled 2,027 m of core in 23 drillholes; 21 of these holes were not used in the 2014 Mineral Resource estimate due to uncertainties in collar location since *garimpeiros* excavated the sites around the collars. Checks of the collar locations of Barrick holes whose survey monuments remain confirm that the location uncertainty is small, in the order of 10 m in the east-west direction. Re-assays of quarter-core from the half-core left from the Barrick exploration program confirm the reliability of the Barrick data. With more confidence in the locations of the Barrick holes, and confidence in the reliability of the Barrick assays, this Report's Mineral Resource estimate did make use of the Barrick holes that fell within the conglomeratic band of Esperança Center and Esperança South.

For the two Barrick surface collars that could be located in the field, TriStar conducted a check assay program using half of the archived core. The half-core was split into quarters and one half sent to the lab for re-assay.

TriStar drilled 144 diamond holes over three different drilling campaigns from 2011 to 2014. This work allowed the submission necessary reports to the DNPM for the important areas on the plateau and the preparation of an initial mineral resource estimate.

Under new management in 2016, TriStar successfully drilled 12 diamond holes in the northern end of Esperança Center and southern extent of Esperança South for the purpose of demonstrating the validity of the exploration target conceptual model, determining additional structural information and expanding the mineralization along strike.

Most of the holes drilled by TriStar were drilled on the targets identified from the two largest gold anomalies in the soil sampling program: Esperança South and Esperança Center. Only two were drilled on Esperança West, and five on Esperança East.

Diamond drillholes were generally oriented to try to intersect the conglomerate band at 90°, or as close as practically possible where the band has a steep dip.

Most diamond drilling was carried out using HQ diameter (63 mm) core. For depths beyond 80–100 m, NQ diameter (47 mm) core was used.

10.2 Reverse Circulation Drilling

In 2017, TriStar undertook a drilling campaign consisting entirely of RC drilling using three drill rigs over a six-month period from March to September. Two of these rigs were provided by Geosedna Perfurações Especiais S/A (Geosedna) and one was provided by GeoLogica Sondagens Ltda (GeoLogica). The Geosedna holes were 127 mm in diameter and the GeoLogica holes were 139 mm in diameter.

TriStar drilled 133 RC holes to infill between the diamond holes in a dense enough pattern that would allow an updated resource to be estimated in accordance to NI 43-101 and CIM standards. RC drilling has the advantage of being faster and cheaper than diamond drilling but the disadvantage of collecting only rock chips, not the integral cylindrical cores of rock collected from diamond drill holes. To mitigate this, TriStar employed DGI Geoscience, a Toronto-based company, to take continuous high-resolution OTV photographs of the inside of the drillholes and invert and display them using WellCAD software. This 'virtual drillcore' could then be examined for structures and other important sedimentological information in great detail by the TriStar geologists anywhere in the world.

Three twin RC holes were drilled at the same collar location and orientation as TriStar's diamond drill holes DH-40, DH-44 and DH-104 to compare and verify assay results. All other RC holes were drilled at 90° to the horizontal.

The RC drilling was planned on a 100 m x 100 m "rhomboidal" grid pattern on the south-western limb of Esperança South, and the northern extent of Esperança Center to add to inferred resources as updated in this report, and on a 50 m x 50 m grid in areas previously drilled in order to satisfy DNPM requirements for final explorations in Brazil.

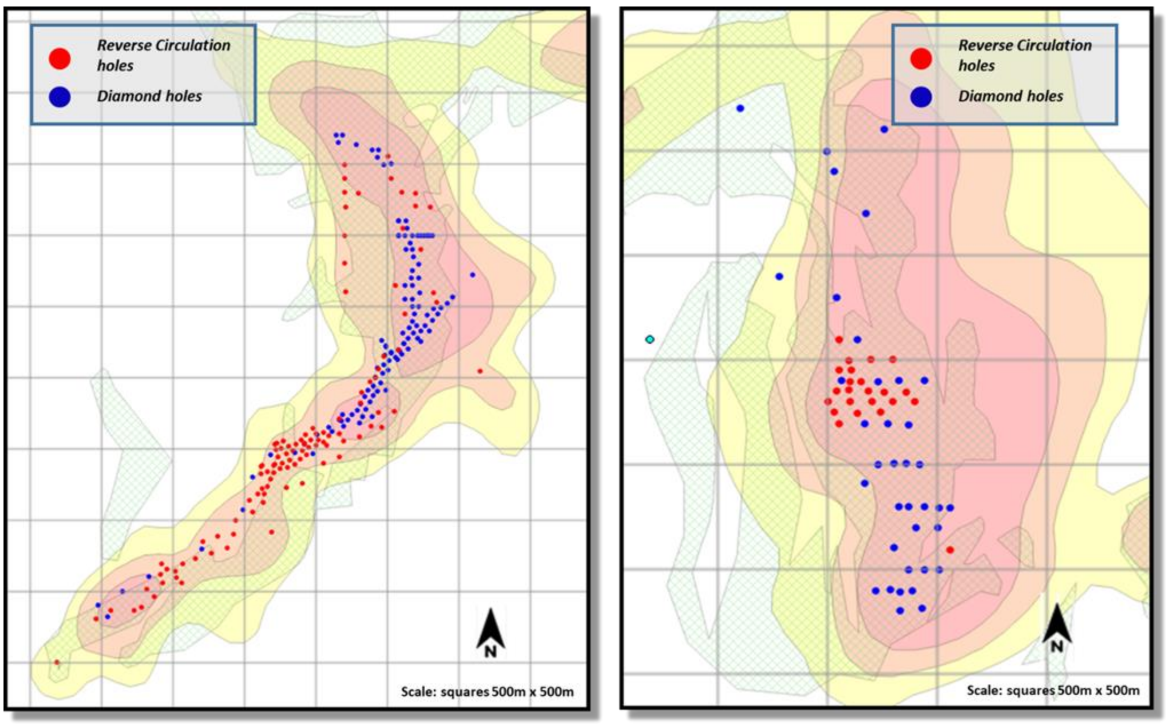

Figure 19: Maps showing the locations of TriStar's diamond and RC drill holes in Esperança South (left) and Esperança Center (right)

Source: TriStar Gold internal map, 2017

Due to assay processing time constraints, only 93 RC holes were used in this Report's Mineral Resource estimate. From the 2017 drilling, 10,247 RC samples out of 15,007 (approximately 70%) were used.

10.3 Summary of Drilling

A summary of the drilling is provided in Table 7.

Table 7: Summary of the drilling campaign completed in the Project

Hole type	Title holder	Drilling contractor	Year	No. of holes	Total (m)
Diamond	Barrick	SETA	1996	23	2,027
Diamond	TriStar	Layne do Brasil	2011	22	4,003
Diamond	TriStar	Layne do Brasil	2012	71	9,000
Diamond	TriStar	Layne do Brasil	2014	51	4,110
Diamond	TriStar	Layne do Brasil	2016	12	2,828
RC	TriStar	GeoLogica	2017	74	8,495
RC	TriStar	Geosedna	2017	59	6,524
Total				**312**	**37,430**

10.4 Sampling

10.4.1 RC Sampling

Sampling of RC holes is done by initial split at the drill rig using a Metzke Riffle splitter at a proportion of 75% and 25%. The 25%, approximately 7.5 kg sample in weight, was bagged for assay. The remaining 75% was also bagged and stored on site for reference, organized by drillhole number and depth.

Representative rock chips were collected during the drilling and logged on site by a geologist to establish the stratigraphic context of the sampling and to provide a geological description of each sample. These have been stored along with the archived diamond drill core in the core storage area beside the camp office.

TriStar undertook a field trial of OTV technology, using the services of Toronto-based firm DGI Geoscience to take high definition photos of the inside to the RC drillholes. In addition to using the chips to log the RC holes, on-site geologists also used these OTV images to help refine the logging of RC holes.

10.4.2 Core Sampling

HQ core samples were halved using a core saw with one half sent to either ACME, ALS or SGS Geosol laboratories for assay; the other half was retained in the core box for quality control and verification purposes. Check assaying was done by the Intertek laboratory. Where resampling needed to be done, the half core that remained in the box was quartered and sent for re-assay leaving the other quarter in the core box.

In early holes, from 2011, sample intervals were mostly 1 m wide, but from 2012 onwards sample intervals were generally 2 m, but shorter where geological contacts were used to define an interval.

10.4.3 Core Logging

All drill core during the 2011–2014 programs was logged using TriStar's lithological codes. The geologists were asked to note the major lithology type and alteration intensity. A rock quality designation (RQD) was recorded in the earlier holes. Recoveries were generally excellent with complete core recovery in most runs.

From 2016 onwards, on advice from Dr Rael Lipson, a more thorough logging system was put in place that required onsite geologists to note clast sizes, basal contact, gradation, hydrothermal alteration, fabric, gold occurrence, geological structure, roundness, sorting, grain size and lithology. Using this new logging template, several older holes were also relogged.

10.4.4 Assay Accuracy and Reliability

There are no known factors that could materially impact the accuracy of the assay results. With the majority of the gold being free, and some of this being coarse, assay results are affected by the “nugget effect” issue, and often show considerably variability in duplicates and replicates. This variability is considerably lower in the RC drill holes where large volume (1 kg) Leachwell cyanide-leachassays were done. The nature of the nugget effect issue makes the drillhole assay database conservative in the sense that some of the very low-grade intervals might have returned higher assays had they been re-assayed, but all the high-grade intervals were re-assayed.

The RC holes were the focus of the petrophysical logging program, which included a caliper log. The vast majority of the RC holes show little variation in diameter, a reflection of the high RQD of most of the silicified rock. Two of the RC holes caved in the friable upper arenite and had to be abandoned.

The visual logging protocols for RC drilling included a column for recording whether the samples were wet or dry when they reached the surface. In 15,019 m of RC drilling, 449 samples (3%) were reported as wet. Comparisons of grades from wet sample intervals and dry sample interval do not show any systematic bias in the wet intervals, nor any smearing of gold grades along the hole. Comparisons of grade profiles in three pairs of twinned core-RC holes shows that the assay data from RC is reliable. Lithology logging suffers in RC holes, where it is harder to distinguish lithologies from chips; but the availability of optical televiewer images mitigates this problem, and allows reliable lithology logging in all the RC holes that were accessible to the optical televiewer instrument.

Field duplicates from the RC drilling program confirm that the sample splitters at the head of the three drill rigs were all functioning well, with no bias between the first split that was sent to the lab and subsequent splits that were used as field duplicates.

10.5 Surveying

10.5.1 Collar Surveying

TriStar drill collars were initially surveyed using one of two handheld GPS devices, either a Garmin GPSmap 78S or a Garmin Etrex touch unit, immediately following the completion of a drillhole. After a period of time TriStar re-surveyed the collars with a GSS Pro Mark 500 for more accurate coordinate readings.

10.5.2 Downhole Surveying

Downhole surveying was performed using either the EZ-Shot system from Reflex, or using the Maxibor system from Reflex. Many of the shorter holes were not surveyed down the hole; for these, their downhole orientations are calculated from a single survey of the orientation of the hole at the collar.

For the RC holes, DGI Geoscience provided orientation using Advanced Logic Technology’s OTV. Except for three RC holes that were oriented parallel to an adjacent core hole, all the RC holes were drilled vertically; the down-hole surveys acquired to support the optical televiewer images confirm that there is almost no horizontal deviation in the vertical RC holes, less than two metres in all the holes that were surveyed to a depth of 120 m.

10.6 Interpretation

10.6.1 Esperança South

Esperança South is the area on the property with the highest grades. Almost every drill hole drilled along its 4.5 km strike length intercepted gold above the resource reporting cut-off grade of 0.4 g/t. This area is open along strike to the south and there is strong evidence of additional mineralization to the north in terrain that is currently not easily accessible to a large drill rig. The mineralization in the northern end appears to be offset by a major east-west fault (see Figure 20).

In Esperança South, the trend of the mineralized conglomerate band bends, having an approximately northeast-southwest strike on its southwestern limb that swings to approximately north-south strike to the north. Drillholes were drilled in a due east direction (090°) in the northern end while in the south the azimuth of each hole was 140° to intercept, as closely as possible, the mineralized beds at right angles to the strike (Figure 20). Almost all the holes are collared in the outcrop of the conglomerate band, and few penetrate the footwall of this band; estimates of the true thickness of the conglomerate band are based on surface mapping of the conglomerate band outcrop, adjusted to take into account the dip of bedding. Through most of Esperança South, the conglomerate band has a true thickness of 250–300 m.

10.6.2 Esperança Center

Esperança Center has been drilled along 2.5 km of strike length and down to 130 m depth. Similar to the northern end of Esperança South, the conglomerate band strikes in a north-south direction meaning all diamond holes were drilled due east (90°), with an inclination of -60° to intersect the conglomerate at right angles to the 30° west dipping beds. Mineralization is open at depth. The southern extent of Esperança Center appears to be truncated by a major east-west trending fault offsetting mineralization eastward to Esperança East. In the northern end of Esperança Center, mineralization is arched around to the west mimicking the surficial exposure of the folded bowl structure, as evidenced by the soil sample anomalies (see Figure 20). Mineralization in Esperança Center is different than in Esperança South; there are fewer no-detects in Esperança Center, but also fewer very high-grade assays, giving Esperança Center lower variability, a lower proportion of assays above 0.4 g/t, but a slightly higher average grade than in Esperança South.

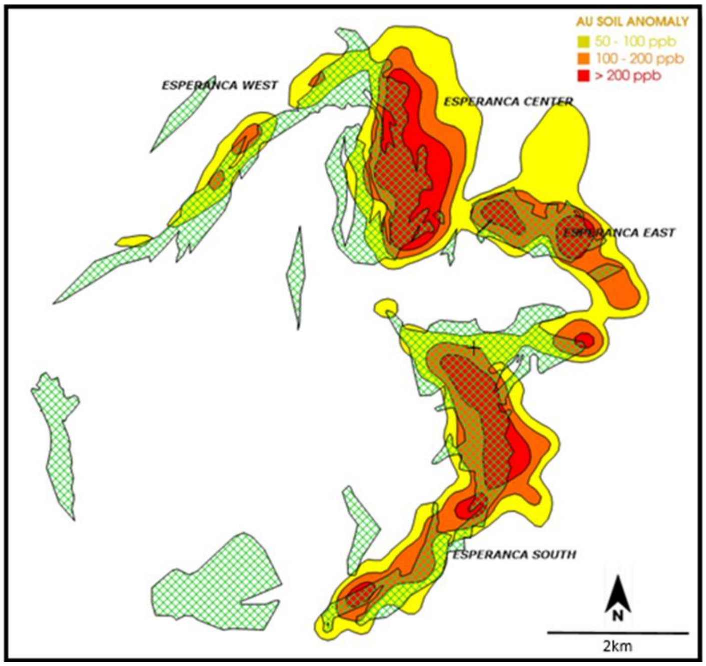

Figure 20: Soil sample anomalies (isolines) and metaconglomerate bands (green hatch) at Castelo de Sonhos

Source: TriStar Gold internal map, 2016

10.6.3 True Thickness

Almost all diamond holes were drilled to intercept the mineralized beds at right angles, or as close as practically possible, in Esperança South and Center. As a result, many of the measured bedding core angles are generally high angle 70–90° to the long core axis. Therefore, the thickness of most intervals from diamond drillholes are very close to true thicknesses. In RC holes, which were drilled vertically, the apparent thickness of an interval observed in the hole is about 15% longer than the true thickness, due to a bedding dip that averages 25° to 35°.

11 Sample Preparation, Analyses and Security

The only samples that have been used for resource estimation are samples from drillholes. Soil samples, surface trench samples and grab samples from outcrops and *garimpos* have not been used.

The TriStar drilling campaigns have consisted of diamond drillholes (2011–2016) and RC holes (2017), and have primarily involved three commercial laboratories: Acme (2011–2012), SGS/Geosol (2012–2017) and ALS (2017).

Table 8: Commercial Analytical Laboratories utilized by TriStar

Laboratory	Year	Prep Lab Location	Analytical Lab Location	Certification
Acme	2011-2012	Itaituba, Brazil	Santiago, Chile	ISO9001:2008
SGS/Geosol	2012-2017	Parauapebas, Brazil	Vespasiano, Brazil	ISO9001:2008
ALS	2017	Goiania, Brazil	Lima, Peru	ISO9001:2008

The laboratories and their employees are independent from TriStar. TriStar personnel and consultants and contractors were not involved in laboratory sample preparation and analysis.

Fire assays were used to establish gold grades for all the diamond drillhole (DDH) samples, and some of the samples from RC drillholes. Leachwell assays were used for most of the RC samples in 2017. In the sections that follow, the different sample preparation protocols used for DDH and RC samples are discussed first, followed by the different analytical procedures used by each laboratory. Quality assurance and quality control (QAQC) programs are then discussed, followed by commentary on sample custody and security.

Also used in the resource estimates were samples from the Barrick drilling campaigns in 1995 and 1996. Archived core from this first drilling campaign on the Castelo de Sonhos plateau was still available in 2011 when TriStar began its work, along with electronic archives of Barrick data and documents. The verification of the reliability of the Barrick assays is discussed in Section 12 (Data Verification).

When TriStar began its work on Castelo de Sonhos, the project archives contained no reports on analytical methods, sample preparation or QA/QC procedures in use during the Barrick exploration program. Excel spreadsheets do record assays done by three different labs: SGS, Nomos and Bondar-Clegg, with most intervals having assays from two or more labs. The archived spreadsheets also record the insertion of blank material at a rate of 1 in every 20 samples. With no reports that pertain to the reliability of the Barrick data, TriStar undertook a re-assaying program of two entire drill holes, taking ¼ core from the ½ core archives that remained from the Barrick drilling.

11.1 Sample Preparation

11.1.1 Diamond Drillholes

Drill core from diamond drillholes was transported, by truck or by all-terrain vehicle, to the core storage and logging area, where it was photographed and sawn. Half of the core was bagged for shipment to the laboratory and the other half was retained at site; some of the half-core has been used for other studies, such as further QAQC checks or for metallurgical test work and is now reduced to quarter-core at site. For most of the TriStar drilling campaigns, the core was sampled in 2 m intervals; shorter intervals were sometimes sampled where significant changes in geological characteristics were noted.

11.1.2 Reverse Circulation Drillholes

Samples from the TriStar RC holes were collected every metre, with the splitter at the RC rig being set to deliver approximately one quarter of the chips to the buckets that were then bagged for shipment to the laboratory. The remaining chip material was stored on site for use in further studies, and a small collection of chips from each interval were retained for viewing purposes in the core storage area.

11.1.3 Lab Preparation for Fire Assays

The entire sample received by the lab was dried and crushed to 2 mm using a jaw crusher, with the exact specification for crushing being slightly different for each of the primary labs that did fire assays:

- 85% less than 2 mm was used by Acme, which handled the samples from August 2011 through March 2012 (holes CSH-11-001 to CSH-12-033).
- 95% less than 2 mm was used by SGS/Geosol, which handled the samples from August 2012 through May 2017 (holes CSH-12-034 to CSH-16-155, and RC-17-156 to RC-17-170).
- 90% less than 2 mm was used by ALS, which handled samples from May 2017 through the time of this report (holes RC-17-171 to RC-17-249).

After homogenization of the crushed material, the preparation lab took a subsample and pulverized it:

- Acme took a 500 g subsample of the homogenized crushed material and pulverized it to 85% less than 75 microns (200 mesh)
- SGS/Geosol took a 200–300 g subsample of the homogenized crushed material and pulverized it to 95% less than 100 microns (150 mesh)
- ALS took a 1 kg subsample of the homogenized crushed material and pulverized it to 95% less than 100 microns (150 mesh).

The pulverized material was then shipped to the analytical laboratory.

11.1.4 Lab Preparation for Leachwell Assays

ALS is the only lab that has done Leachwell assays for the Castelo de Sonhos project, using their prep lab in Goiania, Brazil, and their analytical laboratory in Lima, Peru. To date, Leachwell assays have been done only on samples from RC holes.

The ALS preparation for Leachwell assays followed the same steps as described above for the few fire assays done by ALS. The preparation lab dried and crushed the entire received sample, to 90% passing 2 mm. After homogenization of the crushed material, a 1 kg subsample was taken and pulverized to 95% less than 100 microns (150 mesh). The pulverized material was then shipped to the analytical laboratory in Lima, where the entire 1 kg was analysed using the Leachwell procedure.

11.2 Sample Custody and Security

Drill samples collected by TriStar geologists were placed in plastic bags that were tagged and sealed (Figure 21). These were grouped into batches for shipment to the preparation lab, using large sacks. Each laboratory batch would consist of a few large sacks, each of which typically contained a few dozen individual sample bags. The sacks were also sealed and labelled to indicate how many large sacks belonged to the same batch. TriStar's external QAQC samples (field duplicates, blanks and CRMs) were included in the sacks at site by TriStar geologists. Batches awaiting shipment were stored on site, typically for two to three weeks until several batches were transported together, by closed truck, to the preparation lab. The seals on the sacks and bags were broken at the preparation lab, which reported back to TriStar on the samples it received and logged into its laboratory information management system. Through many years of drilling, there have been no samples lost in transit, or additional samples received that were not part what TriStar recorded as having been shipped. There have also been no cases of the individual sample bags being damaged or leaking, or of sample tags being missing or illegible; sample integrity has remained excellent throughout the drilling programs.

At the preparation lab, pulp material was prepared for analysis and transported by commercial air freight to the analytical laboratory, where the samples are again inventoried and checked against the prep lab's records.

Figure 21: Drillhole samples collected and bagged in the core storage area at site

11.3 Sample Analysis

11.3.1 Fire Assays

The conventional fire assays done by TriStar for the Castelo de Sonhos project (by Acme, SGS/Geosol and ALS) have all used 50 g aliquots with an atomic absorption finish.

11.3.2 Leachwell Assays

ALS does Leachwell assays using a four-hour bottle-roll agitation of 1 kg of pulp in a cyanide solution that accelerates leaching using the Leachwell assay tabs manufactured by Mineral Process Control, the developer of the Leachwell technology. An atomic absorption finish is used to measure the mass of gold in solution, and to calculate the head grade of the original sample, assuming that none of the gold is left in the residue.

11.4 Quality Assurance and Quality Control

All the laboratories used by TriStar are ISO certified and have internal QAQC programs for monitoring the accuracy and precision of the analytical results they provide to clients. In addition to the lab's internal QAQC programs, TriStar also runs its own external QAQC program that includes standards, blanks and duplicates inserted into the sample stream at the Project site, prior to shipment to the preparation lab. Table 9 summarizes the number of QAQC samples that TriStar has included in the sample stream.

Table 9: External QAQC samples included at site by TriStar in the sample stream

Sample type	No. of samples	Insertion rate
Regular samples	19,049	
Certified reference materials (CRMs)	1,115	1 in 17
Blanks	1,177	1 in 16
Field duplicates	251	1 in 75

11.4.1 Blanks

Since the start of TriStar's drilling in 2011, only five of the blanks (< ½ %) have returned assays more than 10x the detection limit of 0.005 g/t. Tristar switched labs to rectify errors in blanks and standards reporting.

CSA Global reviewed the material used by TriStar as blank samples during the site visit, it consists of pulverized certified material with zero grade (Figure 24). This material may not allow detecting sample contamination at crushing and pulverization phase of the sample preparation.

11.4.2 Standards

Since the start of TriStar's drilling in 2011, there have been 13 instances (1%) where the assay of a standard was more than 10% above or below its certified reference value. Two of these are likely sample mix-ups; either at the site or in the lab. Of the remaining 11, only one of them was off by more than 20% (a low assay on one standard in the fall of 2016). Tristar switched labs to rectify errors in blanks and standards reporting.

11.4.3 Duplicates

Figure 22 shows a scatterplot of the assays from the field duplicates. The field duplicates of fire assays compare very well to each other, as do the field duplicates of Leachwell assays. A correlation coefficient of 0.97 is excellent, given that the samples being compared are entirely separate when bagged and tagged at site, and are prepared, processed and analysed as entirely independent samples.

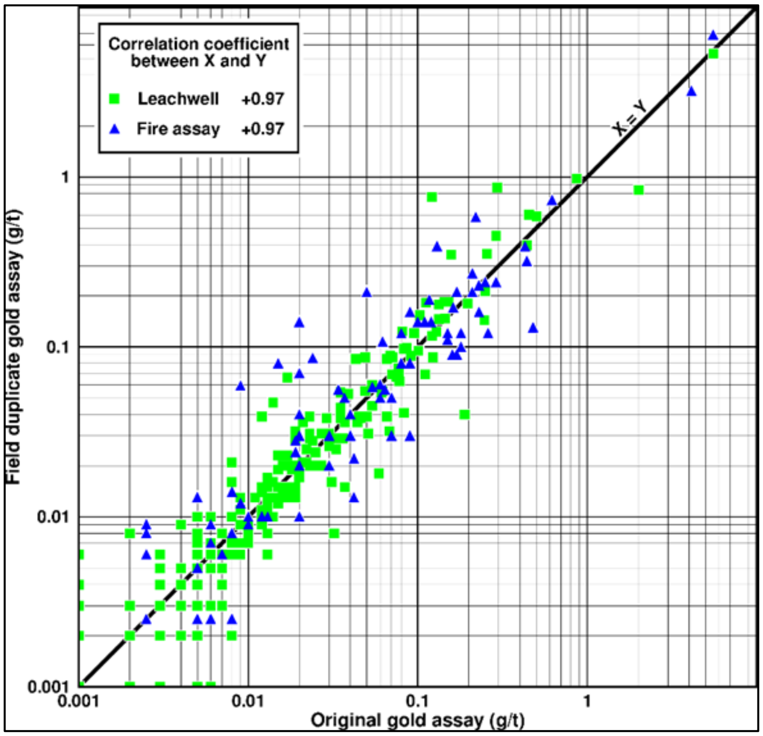

Figure 22: Comparison of gold assays from field duplicates; samples analyzed by fire assay are shown in blue, those analysed by the Leachwell method are shown in green

11.4.4 Metallic Screen Assays

In addition to the external QAQC samples summarized in Table 9, TriStar has also done metallic screen assays of 493 of the intervals that had fire assays. Although there is coarse free gold in the Castelo de Sonhos samples, metallic screen assays do not appear to produce better results than a conventional fire assay. The average grade of the metallic screen assays is only very slightly higher (~3%) than the fire assays, and the variance of the metallic screen assays is only very slightly lower (~4%). With metallic screen assays showing no marked improvement when checked over two drilling campaigns, TriStar decided to continue to use conventional fire assays through its diamond drilling programs.

11.4.5 Leachwell Assays

The Leachwell procedure uses an aggressive cyanide leach to extract gold from pulverized rock. The principal advantage of this analytical method is that it analyses a much larger mass of material than a conventional fire assay. In the case of the Castelo de Sonhos samples, the Leachwell assays were done on 1 kg of pulp, 20 times the mass of the 50 g aliquots analysed in a fire assay. Analyzing a larger mass of material helps to reduce assay variability caused by nuggets of free gold in the sample.

TriStar tested the Leachwell procedure on some of the first RC holes drilled in 2017 and found that this method does produce more reliable assays:

- Of the 485 blanks run through the Leachwell procedure, none of them returned grades more than 5x the detection limit.
- For the CRMs, the variability of the Leachwell assays is lower than it was with fire assays, and the average grade matches the reference value much more closely. For the high-grade CRM, for example, the variance

from the Leachwell assays is less than half that of the fire assays on the same material; and the average Leachwell assay matches the certified reference value to the second decimal place, 5.65 g/t, while the average of the fire assays runs slightly high at 5.78 g/t.

- The scatterplot of field duplicates (Figure 22) also indicates that Leachwell assays have better precision than fire assays: the spread of the sample pairs from fire assays (blue triangles) from the X=Y line is broader than that of the Leachwell assays (green squares).

11.5 Author's Opinion on Sample Preparation, Security and Analytical Procedures

CSA Global believes there are no apparent sampling or recovery factors that would negatively impact the sampling procedures.

CSA Global has reviewed the procedures from TriStar regarding the collection, preparation and security of the different sampling programs and found those procedures to be adequate.

Both core handling and RC drilling sampling methods are adequate for mineralization of this type. It is CSA Global's opinion that the sampling methodology is acceptable and generally meets industry standards and that the analytical data is suitable for use in the estimation of Mineral Resources.

12 Data Verification

The Castelo de Sonhos gold project was visited by Dr Adrian Martinez Vargas, P.Geo., of CSA Global and an independent Qualified Person in terms of NI 43-101, for 1 ½ days on 17-18 August 2017. The purpose of this visit was to conduct a personal inspection of the property and to become familiarised with the deposit and its geology.

During this visit, historic and active artisanal excavation workings (or *garimpos*) were visited. RC drilling, sample collection and logging were observed and one drillhole location was verified with a handheld GPS (Figure 23). The core shack facilities were visited and partial core from diamond drillholes were observed and compared with the geology observed in abandoned *garimpos* (Figure 24). Sample preparation, shipping and QAQC procedures were verified and reviewed with the geologists onsite (Figure 24). No independent verification sample was collected.

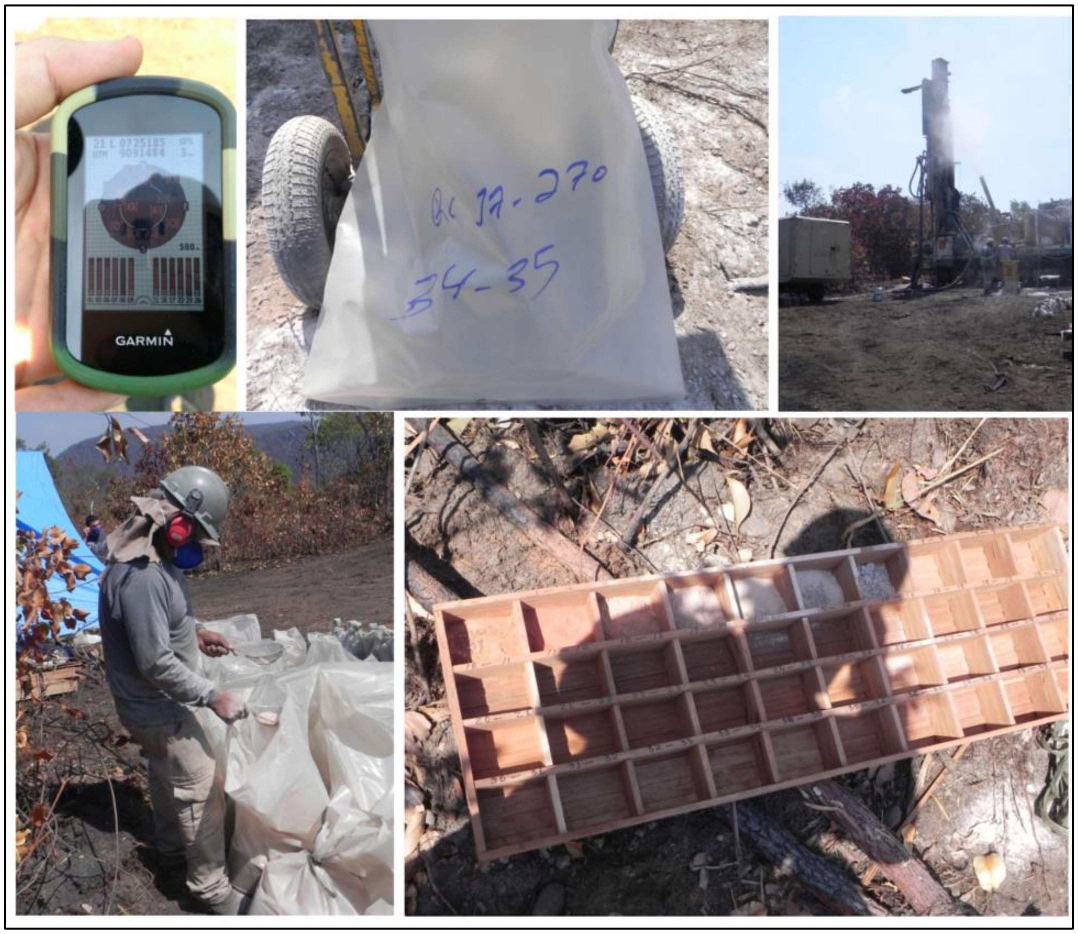

Figure 23: Drillhole location verification and sampling procedure verification at drillhole RC17-270, with coordinate E 725202, N 9091500, RL 590.27

Figure 24: Comparison of geology observed in core, in grainpos outcrops (above) – inspection of the core shack, sample logging and QAQC samples and procedures

12.1 Verification of Drillhole Data from Barrick Campaign (1996)

TriStar validated the two Barrick drillholes with known locations, CSBG-2A and CSBG-13, by re-assaying quarter-cores and comparing it with the original half-core assay. These drillholes were surveyed and renamed as CSDH-2A and CSDH-13. As shown in Figure 25 the discrepancy in location between CSDH-2A and CSBG-2A is very small.

TriStar drilled a twin drillhole close to CSBG-2A (Figure 25) and the gold grades in both drillholes are very similar.

Figure 26 shows a section containing Barrick drillhole CSDH-14 and Tristar drillholes CH-14-118, and CH-12-024. Gold grade values and patterns in nearby sample intervals from these drillholes are similar.

CSA Global believes there is no reason to exclude historic drillhole data provided by Barrick and these drillholes can be used to estimate Mineral Resources with Inferred classification.

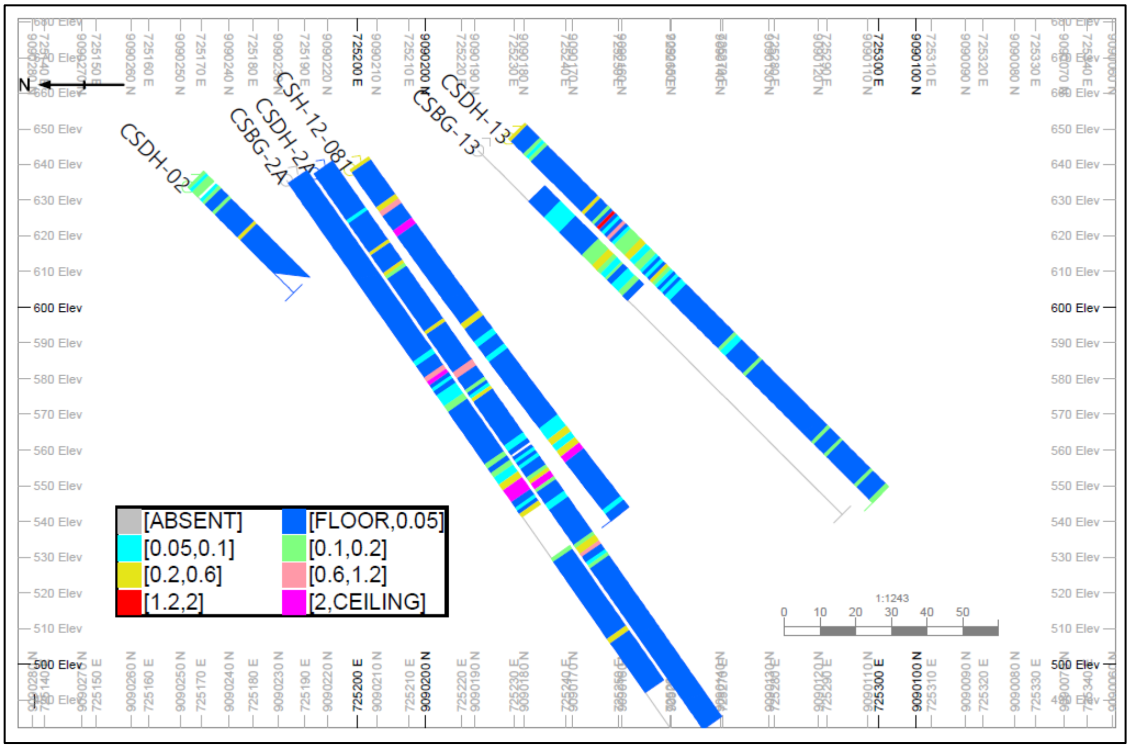

Figure 25: Comparison of drillholes from Barrick (CSBG-2A and CSBG-13) with its re-assayed and resurveyed equivalent CSDH-2A and CSDH-13 and its twin CSH-12-081

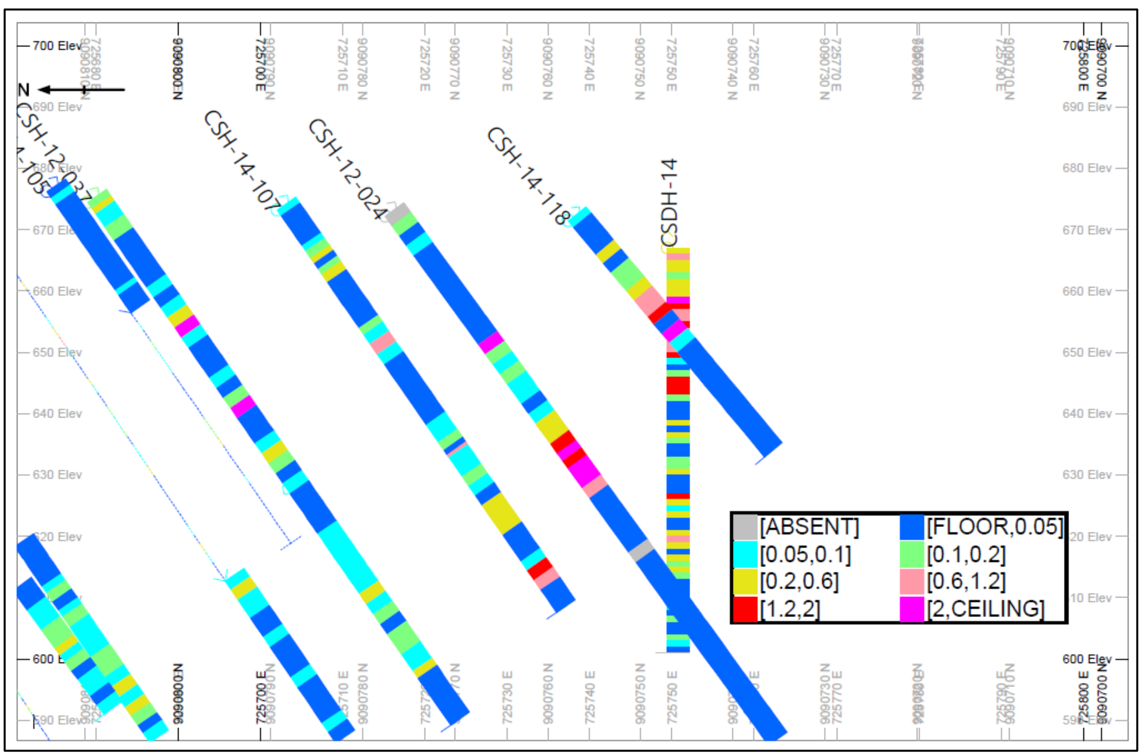

Figure 26: Section containing TriStar drillholes and Barrick drillhole CSDH-14

13 Mineral Processing and Metallurgical Testing

13.1 Metallurgical Testing Procedures

Both the 2014 and 2016–2017 testwork programs on the Castelo de Sonhos mineralization demonstrated good general agreement in the amenability of the samples as tested to gold extraction by conventional gravity recovered gold (GRG), flotation and cyanide leaching techniques. Key test results from both programs are shown in the Table 10.

Table 10: Comparison of the 2014 and 2016–2017 testwork programs

Metallurgical parameter	2014	2016–2017
Abrasion Index (Ai)		0.33–0.37
Bond Work Index (Bwi)		13.5–13.7
Head Grade Tested (g/t)	3.11	1.3
GRG (%)	91.3	85.2
Grind Size (µm)	53	75
Mass Pull (%)	0.85	0.93
Leach (GRG Tail) Recovery (%)	96.2	
Flotation Recovery (%)		73.7
Mass Pull (%)		3.5
Overall Recovery (%)	99.7	97.6
Reagent Consumption - Cyanide (kg/t)	0.65	0.16
Reagent Consumption - Lime (kg/t)	0.2	0.5

The samples as tested displayed excellent recoveries with acceptably low mass pulls and moderate to fast leach kinetics.

Limited comminution testing was carried out, indicating the mineralization is only moderately abrasive (Ai 0.33–0.37) and of medium hardness/competency (BWi 13.5 –13.7 kWh/t).

The 2014 testwork program was carried out at SGS-Geosol in Vespasiano MG Brazil and although on a less representative sample, 3.11 g/t compared to the expected average grade of 1.5 g/t, this sample nevertheless demonstrated good agreement with the later 2016–2017 testwork program.

Both SGS and McClelland Laboratories Inc. (MLI) have credible track records such that the results generated can be considered valid.

Although it is recommended that a further variability testwork program is carried out on this mineral deposit to ensure that there is no significant lithological variation, this initial scope of testwork and the results obtained are considered reasonable.

13.2 Assumptions

The client has stated that “the composite material created in the fall of 2016 for metallurgical testwork was selected to be representative of what was currently understood as the resource in Esperança South”. It is further noted that since the 52 kg composite sample for the 2014 testwork campaign came from 12 drillholes

(CSH-41, 43, 44, 47, 57, 58, 59, 80, 81, 83, 85 and 87) in Esperança South the northern part of the mineralized zone has not been tested. Figure 27 outlines the area samples for the 2016–2017 program only.

Accordingly, it has been assumed it is unlikely the northern areas pose a significant risk to design options that have been established from the data obtained from the 2016–2017 testwork campaign.

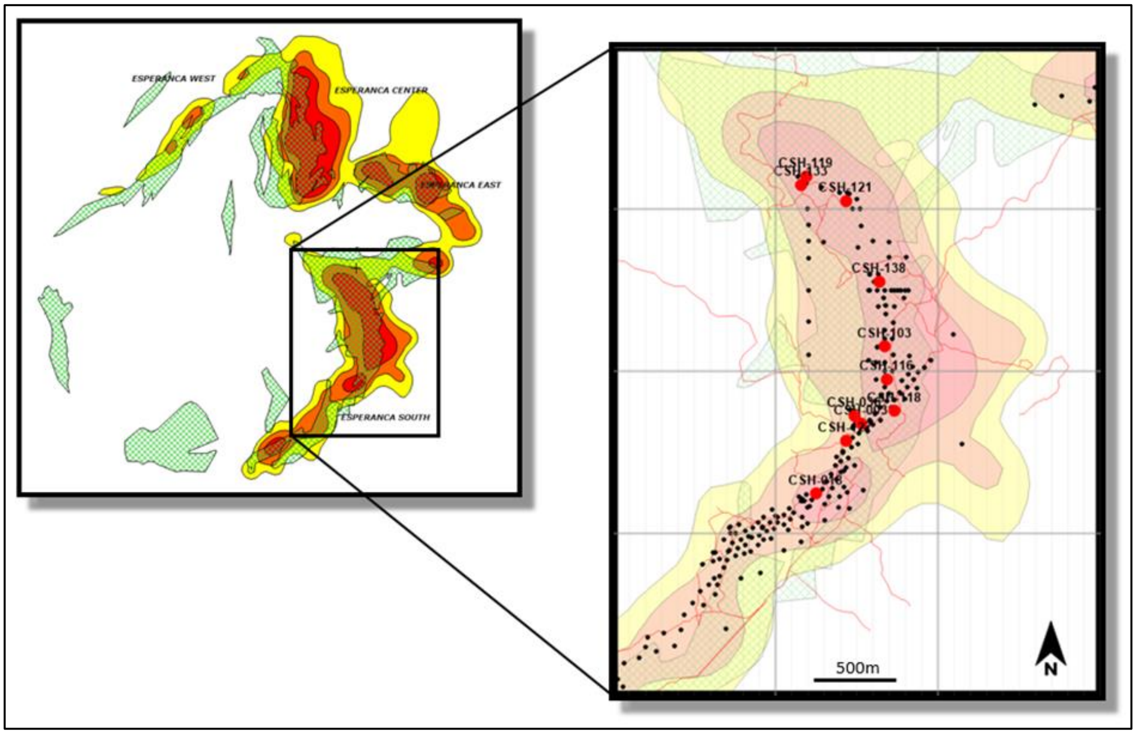

Figure 27: Testwork sample locations for the 2016–2017 testwork program

Source: TriStar Gold internal map, 2017

13.3 Sample Selection

As shown in Figure 27, the latest testwork campaign has been carried out on samples from 63 intervals in 11 holes (CSH-11-003, CSH-11-018, CSH-12-036, CSH-14-103, CSH-14-116, CSH-14-118, CSH-14-119, CSH-14-121, CSH-14-127, CSH-14-133, CSH-14-138), running the strike length of Esperança South.

The client's intent was to maximize spatial and rock type representativeness while targeting a projected gold grade of 1.5 g/t. The main mineralized lithology type's MC1 and MC2 made up 55 and 24 % of the samples respectively. This is considered a marginal assumption as it ignores the northern area as previously stated.

13.4 Other Factors

For comminution purposes the material tested is characterized as relatively abrasive with medium hardness. It was amenable to all metallurgical processes tested, cyanidation, gravity concentration, flotation, and cyanidation of various intermediate concentrates and tailings using proven and conventional technology. Each potential process route comes with its own set of costs, recoveries and environmental considerations. Ultimately, selection of the most appropriate flowsheet for project development will require examination through a series of screening studies that will address all these factors on a comparative basis coupled with further testing to confirm the conclusions of those studies.

14 Mineral Resource Estimates

14.1 Introduction

This Mineral Resources estimate was prepared by Dr Adrian Martínez Vargas, Senior Consultant, P.Geo., and full-time employee of CSA Global, and peer reviewed internally by other CSA Global staff. The Mineral Resource estimate was also provided to the Tristar Gold technical staff to review for any errors or omissions. Mineral Resources were estimated in Esperança South and Center, using all gold assays available by August 2017 and where drillhole spacing did not exceeded 100 m.

TriStar provided CSA Global with a topographic digital elevation model (DTM), the geological map of the Project, bedding dip and dip direction angles and a drillhole database containing lithology logs and gold assays. CSA Global reviewed all the informing data provided and considers that the quality and quantity of the information is appropriate for Mineral Resource estimation.

The Mineral Resource estimate workflow was as follows:

- Data validation and preparation
- Interpretation of the geology and mineralization domains
- Coding, compositing and capping
- Exploratory data analysis and statistical analysis
- Variogram analysis
- Block modelling
- Derivation of kriging plan, interpolation and validation
- Classification and resource reporting.

14.2 Informing Data and Database Validation

TriStar provided CSA Global with informing data consisting of two topography surfaces, a drillhole database and the geological map of the area of the Project. TriStar also provided CSA Global with surface sampling and soil anomalies maps, but this data was not used for Mineral Resource estimation.

14.2.1 Topography

TriStar provided CSA Global with a high resolution digital elevation model (DTM) dated 1 August 2017. This DTM was surveyed with drones and it covers almost entirely the area of Esperança South and Esperança Center. This high resolution DTM was extended with an older elevation model, as shown in Figure 28. The combined elevation dataset was triangulated and clipped to the extension of the mineralized and drilled zones.

CSA Global conducted a visual validation of the DTM by comparison with known terrain features mapped in other sources, such as *garimpos* delineated in the geological map and drillhole collars. The visual validation showed consistency of the DTM with mapped terrain features (Figure 29 and Figure 30). Drillhole collar elevations showed minor differences with elevations in the DTM, CSA Global assumed that the DTM is more accurate and collars elevation were updated using DTM data.

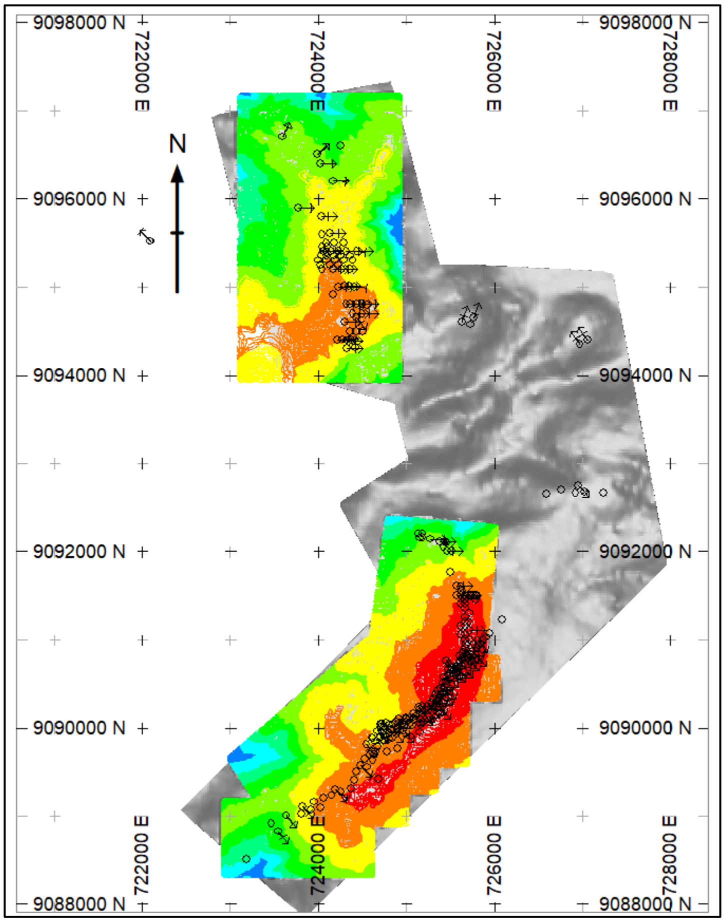

Figure 28: Drillhole (black), DTM from 2017 survey campaign (colored isolines) and old low resolution DTM (shaded grey)

14.2.2 Geological Map

Tristar produced a geological map based on information collected in field during soil sampling campaigns and geological mapping campaigns. This map included some surface structural measurements of the metaconglomerate layers. The map was georeferenced and overlain on the elevation model, the structural information was digitized and used as reference to create an interpretation of the metaconglomerate package (Figure 29). TriStar also provided a set of structural measurements of the metaconglomerates that was used to interpolate direction angles which were used to align the "flat" directions of the search ellipsoids with the local bedding orientation.

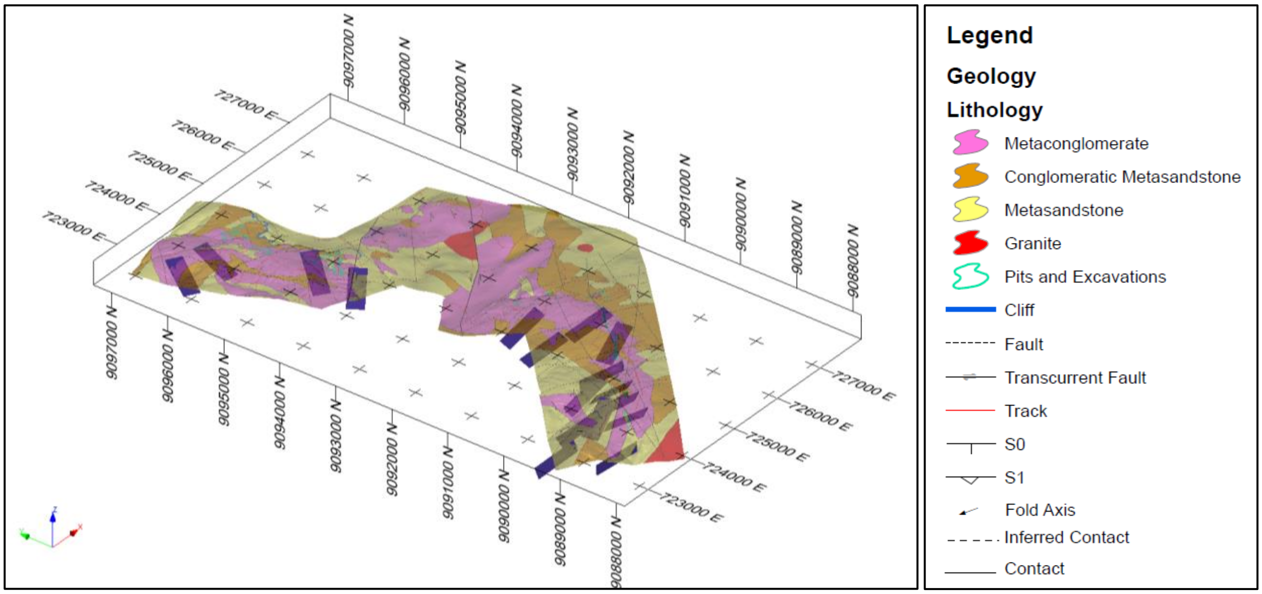

Figure 29: 3D view of the geological at surface (transparent overlay) and structural measurements (blue planes)

14.2.3 Previous Mining Surfaces

In the Project area are surface artisanal mining excavations (*garimpos*), mostly in the form of trenches, and some small tunnels at the base of the trenches. These excavations were not surveyed and are not accurately reflected in the actual elevation model, many are flooded (Figure 30). CSA Global inspected these excavations during the site visit and considers that not excluding this mined-out material from the block model will not impact for the Mineral Resource estimate because their volume, number and extension is small compared to the block sizes used to interpolate.

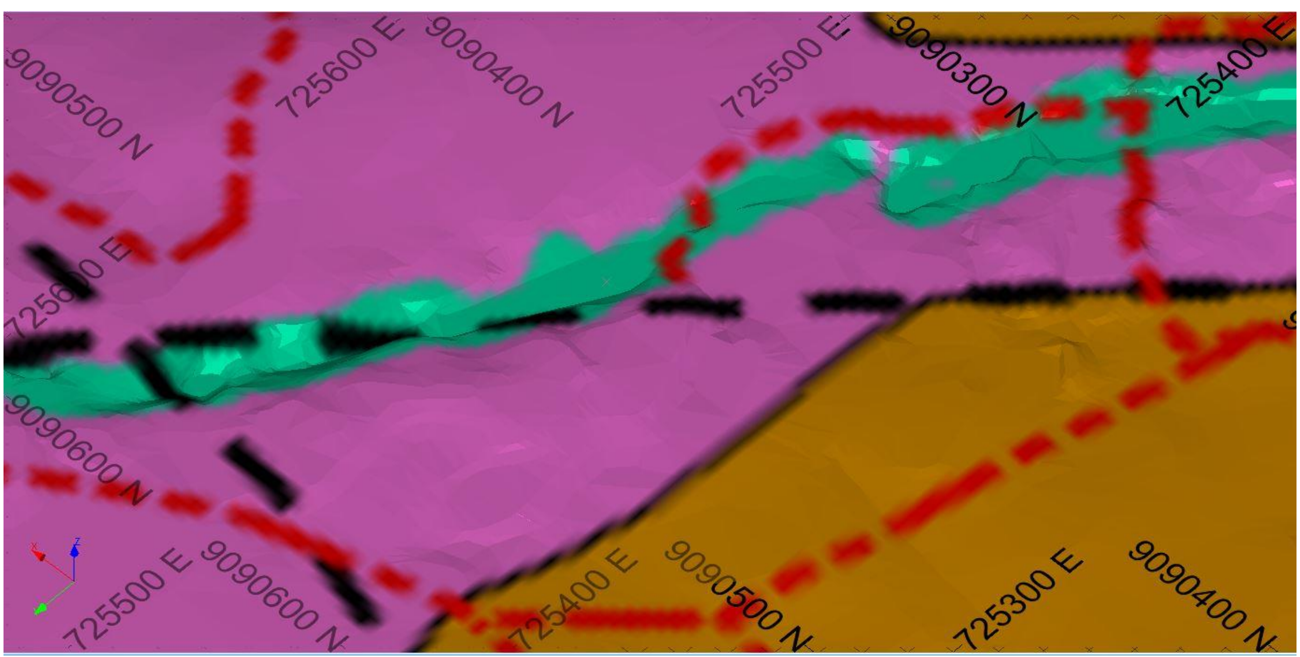

Figure 30: Geological map showing garimpos (green) overlain on 2017 topographic DTM. Refer to Figure 29 for geology legend.

14.2.4 Drillhole Data

TriStar provided CSA Global with a drillhole database in Microsoft Access format. This database contained the information of three different drillhole campaigns:

- A TriStar RC drillhole campaign drilled during 2017
- A TriStar diamond drillhole campaign drilled from 2011 through 2016
- An historic diamond drillhole campaign drilled by Barrick in the 1990s.

The 2017 campaign has an effective date of 29 August 2017 and contains 94 RC drillholes, most of them with approximately 120 m length. Collar IDs of these drillholes are from RC17-156 to RC17-249. Drillholes RC17-250 to RC17-279 were also drilled but assays were not available by the time this Report was prepared. Most drillholes are vertical, with the exception of RC17-165, RC17-166 and RC17-167, which were drilled with an angle to twin the diamond drillholes CSH-12-044, CSH-12-040 and CSH-12-104.

Drillholes from 2011 to 2016 contain 16,212 m of diamond drilling core in 143 drillholes. Most of these holes were drilled on Esperança South and Esperança Center. Two drillholes of this campaign were drilled on Esperança West, and five on Esperança East. Diamond drillholes were oriented to intersect conglomerate beds with around 90°. Most drilling was carried out using HQ diameter (63 mm) core. For depths beyond 80 m to 100 m, NQ diameter (47 mm) core was used.

The 23 Barrick diamond drillholes have a total length of 2,027 m. Collar coordinates were verified by TriStar in only two drillholes because *garimpeiros* excavated the locations of the other 21 drillholes, removing their collar monuments. TriStar conducted a check assay of these two drillholes consisting of assaying the half of the archived core and by drilling twin drillholes.

Drillhole Data Used for Interpolation

In total, TriStar provided 273 drillholes but CSA Global only used drillholes within the areas of Esperança South and Esperança Center and also excluded twin drillholes, giving preference to newer or longer drillholes. In total, 240 drillholes were used to estimate.

Drillholes samples were assayed for gold grades with fire assay and Leachwell; some intervals also have second gold assays from ICP mass spectrometry. Some samples were re-assayed up to three times with fire assay as part of an internal quality program conducted by the lab. CSA Global used the average of gold of all assay results to interpolate.

TriStar also provided lithology log in sample intervals.

Drillhole Data Validation

CSA Global conducted a set of validations consisting of checks of data integrity issues, interval gaps and overlaps. The quality of the informing data was also validated with QAQC analysis, review of non-assayed intervals, visual validation of grade and lithology log spatial distributions. Drillhole twins were reviewed on a case-by-case basis, and the redundant data removed to avoid issues in the interpolation of grades.

CSA Global did not identify any major issues in the database; however, inconsistencies in logging system with old Barrick drillholes were identified. Barrick lithology log was not used for interpolation.

Lithology logging in RC holes was compared to the lithology logging in nearby diamond drillholes; although differences exist (Figure 31), the Qualified Person believes the logging is appropriate for resource estimation with an Inferred classification.

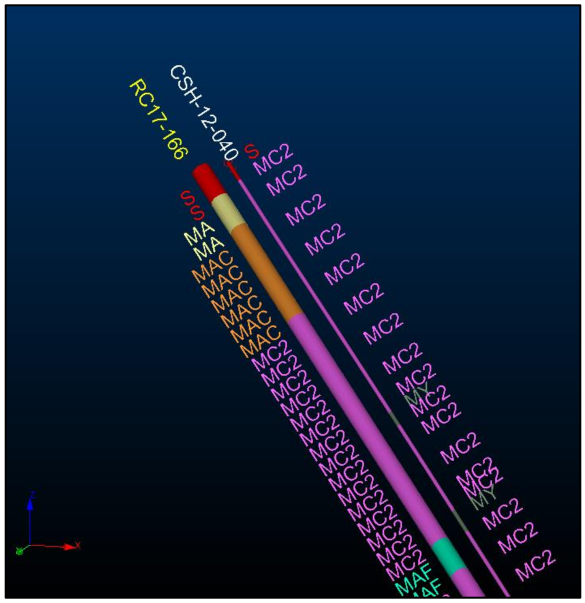

Figure 31: Comparison of logging from diamond drillhole and its RC twin

14.3 Geological Interpretation and Estimation Domains

TriStar interpreted the mineralization as a modified paleo-placer in conglomerates, with some gold remobilization. Alluvial gold exists in conglomeratic rocks and remobilized gold can be in any lithology within the metaconglomeratic band, or immediately above it. CSA Global used the map, structural measurements (Figure 29), and drillhole lithology logs to create the wireframe of the metaconglomerate band.

Lithology logs were regrouped in three codes, MC0, MC1, MC2, as shown in Table 11. CSA Global assumed that metaconglomerates supported by pebble (MC1) and by matrix (MC2) contain alluvial gold, while all the other lithologies (MC0) mostly contain remobilised gold. MC0 is in general lower grade but not barren, as shown in Figure 32.

CSA Global modelled MC1, MC2 and MC0 proportions within panels using categorical indicator kriging. Barrick drillholes were not used to estimate lithology proportions because their lithology logging system was not compatible with the TriStar lithology codes used in the vast majority of the database.

Table 11: TriStar lithology logging codes and CSA Global simplified lithology codes used for modeling and estimating

TriStar code	CSA Global code	Numeric code ES	Numeric code EC	Description
mC1	MC1	1100	2100	Metaconglomerate supported by pebble
mC2	MC2	1200	2200	Metaconglomerate supported by matrix
mC3	MC0	1000*	2000*	Microconglomerate
Gr				Granite
mA				Metasandstone
mAC				Conglomeratic metasandstone
Maf				Diabase

** Codes 1000 and 2000 were also used to refer to Esperança South and Centre zones.*

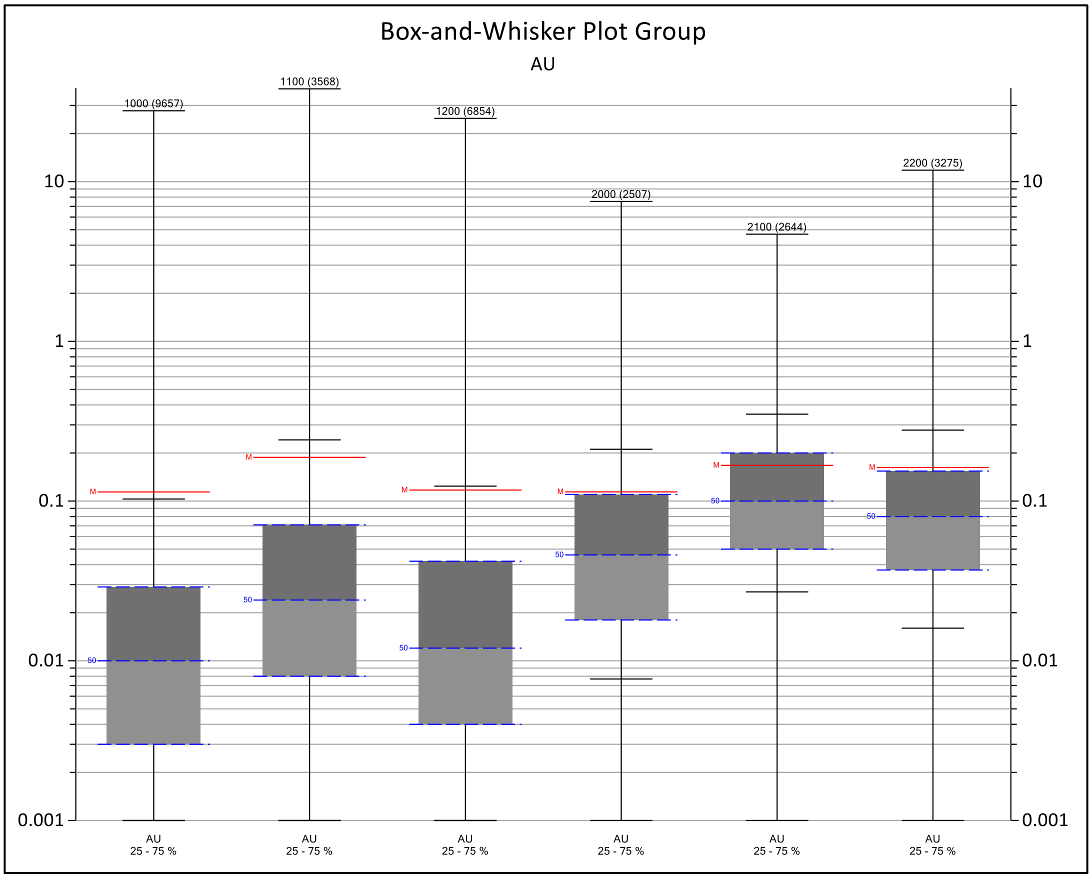

Figure 32: Box and whisker plot of gold grades per lithology code and domain

14.4 Sample Coding, Compositing and Capping

Drillhole intervals were composited without combining samples from different lithology codes (Table 11). Sample intervals with length between 0.2 m and 1.5 m were not transformed, samples shorter than 0.2 m were excluded and samples longer than 1.5 m were composited to 1 m intervals.

Composites were capped to a maximum of 20 g/t. This capping value was deduced from cumulative distribution functions (CDF) and from Au grades sorted in ascending order.

14.5 Statistical Analysis and Variography

14.5.1 Lithologies

Lithologies MC1, MC2 and MC0 were expressed as categorical indicators and interpolated in panels using ordinary kriging. The variogram models used to interpolate categorical indicators are shown in the Appendix 1: Variograms.

14.5.2 Gold Grades

New variables representing gold grade in lithologies MC0, MC1 and MC2 were created and named AUMC0, AUMC1 and AUMC2. The statistics of these gold grades are shown in Table 12. Note the high coefficient of variation, which represent a limitation to use classical interpolators such as ordinary kriging and inverse-distance.

Gold grade histograms and CDFs are shown in Figure 33 and Figure 34. Esperança Center shows lower grade and lower probability of gold in high grade bins (Figure 34). CDFs also show that only a small percentage of the samples are above the cut-off because large number of low grade samples were included within the metaconglomerate band wireframe.

Variograms were modelled using normal score transformation and fitted to a normal score variogram model. Normal score variogram models were back-transformed retaining the actual variance on the sills, which is a requirement for Uniform Conditioning and the global change of support. The back-transformed variograms models are shown in Appendix 1: Variograms.

Table 12: Statistics of gold grades

Assay	AUMC0	AUMC1	AUMC2	AUMC0	AUMC1	AUMC2
Domain	Esperança South			Esperança Center		
Samples	9,858	4,583	7,856	2,559	2,777	3,408
Minimum	0	0	0	0	0	0
Maximum	20	20	20	7.52	4.69	11.8
Mean	0.11	0.18	0.12	0.1	0.15	0.14
CV	6.74	5.11	6.54	3.04	1.68	3.46
Variance	0.59	0.85	0.66	0.09	0.06	0.22

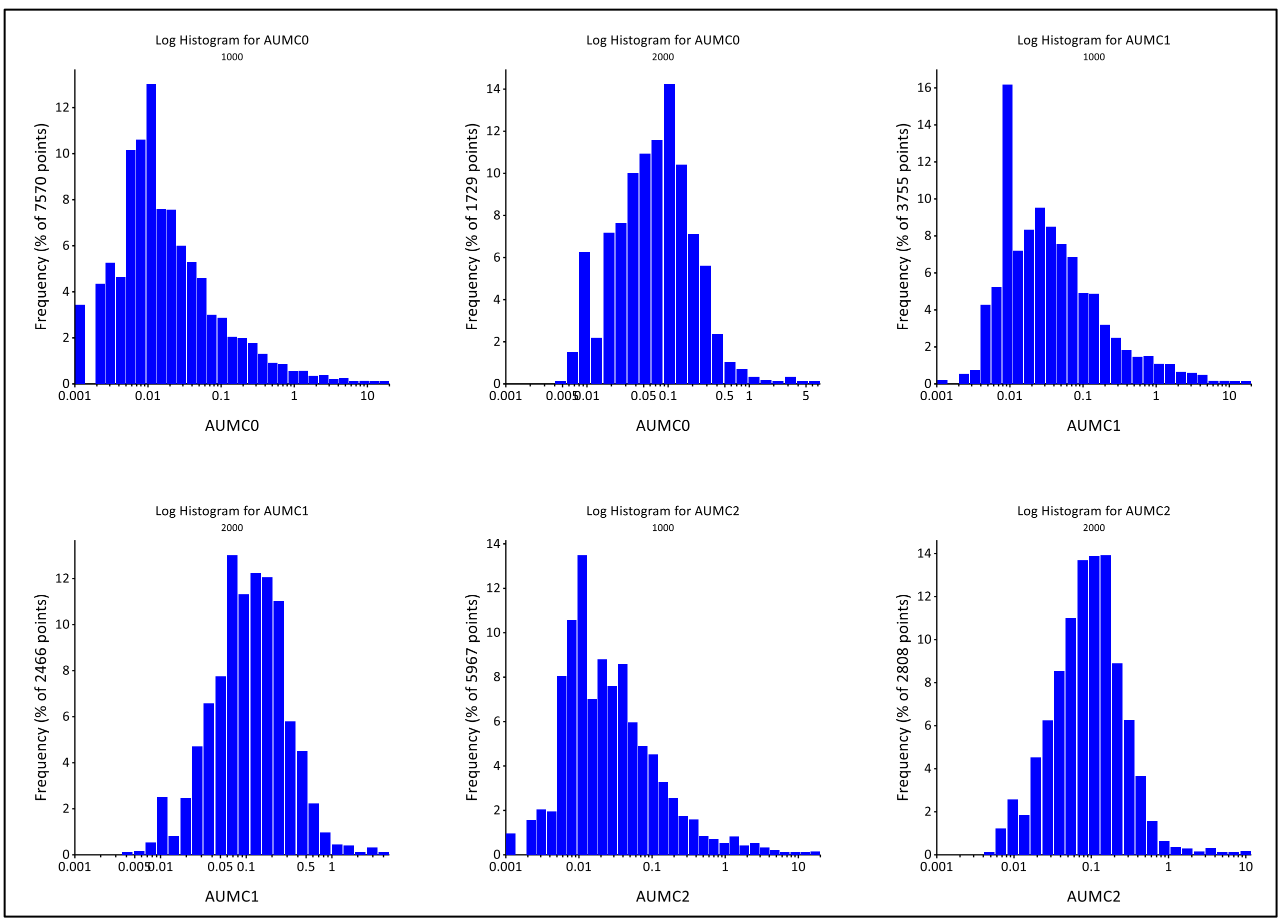

Figure 33: Histograms of gold grades

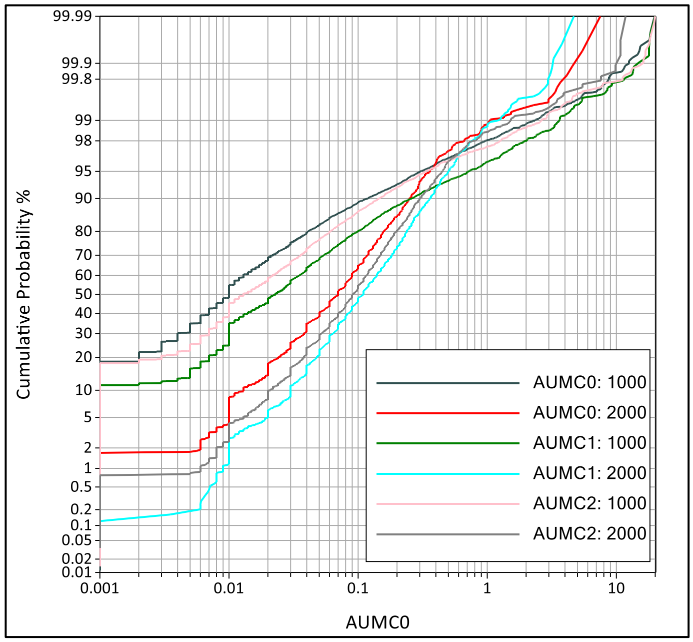

Figure 34: CDFs of gold grades

14.6 Block Model

CSA Global defined a recoverable-style block model, composed by large panels that contains many SMUs. In this type of model local resources are presented as a proportion of mineralized material within panels, assuming that mining selectivity can be done at the SMU scale within the larger panels. Recoverable-style block models allow for better definition of resources at the exploration stage, where wide drillhole spacing will not support accurate and precise estimation in small SMUs. The exact locations of mineralized SMUs within the panel are unknown but can be defined later using future information from infill drilling or grade control data.

The parameters defining the model are shown in Table 13. The panel size was selected so that its diagonal matches drillhole distance in well informed areas. In areas with wider drillhole spacing, panels are approximately one-third of the distance between drillholes. The SMU size was selected assuming open pit operations and a reasonable mining selectivity for this type of deposit.

The percentage of the block below the topographic surface was calculated to correct the block volume and blocks outside the main metaconglomerate package were not interpolated.

Table 13: Block model definitions

Model definition parameter	Value
Panel and block sizes	
Panel width	30
Panel length	30
Panel height	6
SMU width	5
SMU length	5
SMU height	2
Model location and extension (Esperança South)	
Lower left corner, east coordinate	723180
Lower left corner, north coordinate	9088570
Lower left corner, RL coordinate	110
Number of panels along east direction	98
Number of panels along north direction	125
Number of panels along RL direction	115
Model location and extension (Esperança Center)	
Lower left corner, east coordinate	723820
Lower left corner, north coordinate	9094080
Lower left corner, RL coordinate	320
Number of panels along east direction	34
Number of panels along north direction	60
Number of panels along RL direction	59

14.7 Interpolation Methods and Parameters

CSA Global used indicator categorical kriging to interpolate lithology proportions in each panel. Panel average gold grades corresponding to each lithology proportion were estimated using ordinary kriging. Panel grade distributions at SMU support were calculated for each lithology proportion using uniform conditioning. The total mineralized proportion, metal content and average mineralized grade in the panel was obtained by adding the mineralized proportion and metal content corresponding to each lithology.

The parameters used to interpolate lithology proportions and gold grades are shown in Table 14. The search ellipse parameters were selected considering the variogram models shown in Appendix 1: Variograms, sample spacing and panel size. Search rotation angles were dynamically changed from one panel to other to match lithology beds dip and dip direction angles previously interpolated in the block model.

Table 14: Search parameters used for interpolation

Estimation parameter	Value
Search ellipse (first pass)	
Search radius along bedding planes	100
Search radius perpendicular to bedding planes (Esperança South)	30
Search radius perpendicular to bedding planes (Esperança Center)	20
Minimum number of samples	15
Maximum number of samples	24
Search ellipse (second pass)	
Search radius along bedding planes	200
Search radius perpendicular to bedding planes (Esperança South)	60
Search radius perpendicular to bedding planes (Esperança Center)	40
Minimum number of samples	10
Maximum number of samples	18
Common parameters	
Search ellipse orientation	Dynamic
Maximum number of samples per drillhole	6
Block discretization points	3x3x3
Variogram model	see Appendix 1: Variograms

14.7.1 Uniform Conditioning Post-Processing

Panel gold grade distributions, at SMU support, corresponding to each lithology class were obtained with uniform conditioning (UC) postprocessing. This non-linear geostatistical technique requires the average grade in panel, SMUs and panels variances, a set of cut-off grades, and the cumulative distribution functions (CDF) model (Mario E. Rossi, Clayton V. Deutsch, 2013). CDF models are fitted with Hermite polynomials.

The fit of the Hermite polynomials was validated by comparing sample variance with the variance calculated with Hermite coefficients. The SMU and panels change of support coefficients are as shown in Table 15, and were deduced using panel and SMU variances calculated with the same not-normalized variogram models used to interpolated gold grades in panels (Appendix 1: Variograms). Gold grades corresponding to lithologies MC0, MC1 and MC2 interpolated with ordinary kriging were used to define average gold grades in the panel.

Gold grades and tonnages corresponding to each lithology were calculated over the cut-offs 0.0, 0.3, 0.4, 0.5, 0.6, 0.7 and 0.8 g/t Au. The zero cut-off was only used for validation purpose.

Table 15: Change of support coefficients used for support effect correction with discrete gaussian model

Parameter	Lithology MC0	Lithology MC1	Lithology MC2
Esperança South			
SMU support correction r	0.85	0.85	0.85
Panel support correction r'	0.59	0.50	0.58
Esperança Center			
SMU support correction r	0.81	0.79	0.81
Panel support correction r'	0.56	0.52	0.57

14.7.2 Obtaining Total Tonnages and Average Grades within Panels

The total panel tonnage (T) and the total panel metal content (Q) for each cut-off was obtained by adding tonnages and metal contents corresponding to each lithology. Total gold grades were obtained as the ratio of metal content to its corresponding tonnage (Q/T).

Proportions were reviewed to make sure that they add to one. Tonnages were calculated using a constant density of 2.65 t/m^3. While larger than the 2.50 t/m^3 density constant used for the 2014 Mineral Resource estimate, 2.65 t/m^3 corresponds better to density measurements that appear in the technical literature for quartz pebble conglomerates. It is still slightly lower than the densities measured at Tarkwa and Jacobina, both of which have mineralized rock that is more friable (lower RQD) than what is seen at Castelo de Sonhos. CSA Global recommends that several dozen measurements of dry bulk density be done in various ore types, and also in the friable upper arenite that hosts most of the waste stripping that would have to be done in an open pit operation.

14.8 Model Validation

Variables interpolated were dip and dip direction of metaconglomerates, lithology proportions, average gold grade corresponding to each lithology and tonnage and grade over cut-offs. All these variables were validated before reporting resources.

Validations consisted of:

- Visual comparison of drillhole data with variables interpolated in panels to verify that local trends and grades were reproduced
- Comparison of de-clustered mean grades on composites with panel mean grades
- Review of estimated values to detect non-estimated blocks, variables out of range and consistency of results
- Swath plots to identify local overestimation and over-smoothing
- Global change of support to ensure the grade-tonnage curves reported are within acceptable ranges
- Comparison with alternative estimation method.

Interpolated dip and dip direction of metaconglomerate beds were visually validated to ensure that angles were correct.

Lithology proportions in model sections were visually compared with lithologies at drillholes, as shown in Figure 35. Proportion statistics from models and drillholes were also compared, as shown in Table 16.

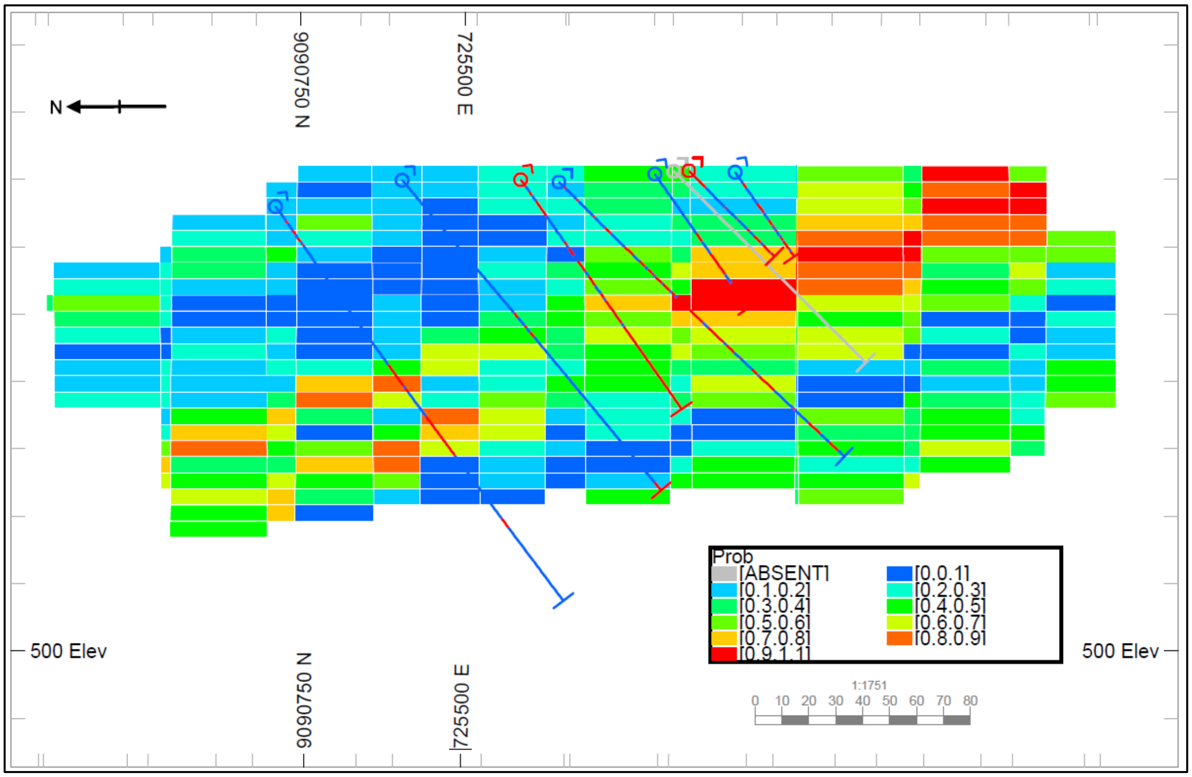

Figure 35: Section showing lithology MC1 proportion calculated in panels and lithology MC1 at drillholes (in red drillhole intervals with lithology MC1, otherwise intervals are in blue)

Table 16: Comparison of the total lithology proportions calculated from drillhole composites and from panels

Lithology	Proportion at drillhole	Proportion at model
Esperança South		
MC0	0.5	0.5
MC1	0.2	0.2
MC2	0.4	0.4
Esperança Center		
MC0	0.3	0.3
MC1	0.3	0.3
MC2	0.4	0.4

Average gold grades in panels corresponding to each lithology were validated with statistical comparison of means, visual validation of model sections, swath plots, and global change of support. Examples of validation results are shown in Table 17, Figure 36 and Figure 37. Individual lithology gold grades estimated in panels were slightly over-smoothed, but these results are acceptable to use as input in UC.

Table 17: Comparison of average gold grades at drillholes and panels

Lithology	Average Au grade at drillhole*	Average Au grade in panels
Esperança South		
MC0	0.11	0.11
MC1	0.18	0.08
MC2	0.12	0.11
Esperança Center		
MC0	[0.10] 0.11	0.11
MC1	[0.15] 0.17	0.12
MC2	[0.14] 0.16	0.15

** De-clustered mean in brackets*

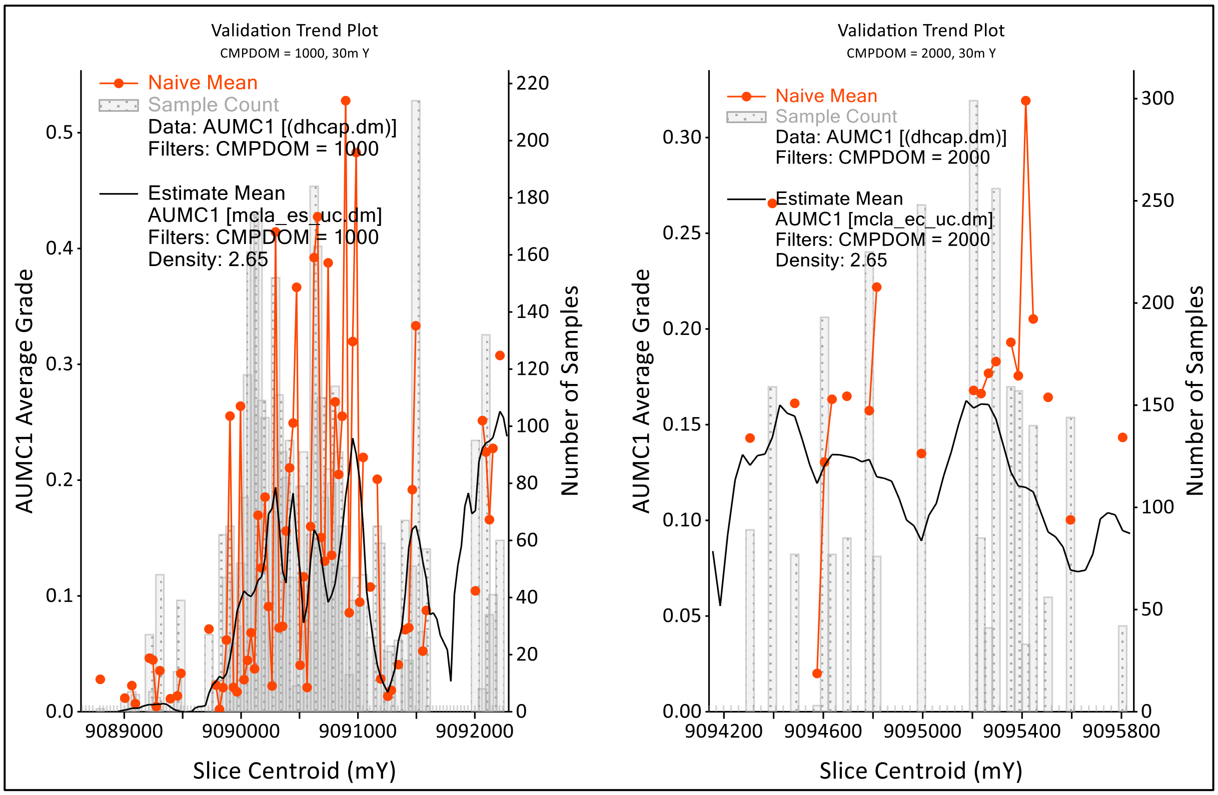

Figure 36: Swath plots showing average gold grades on panels and drillholes

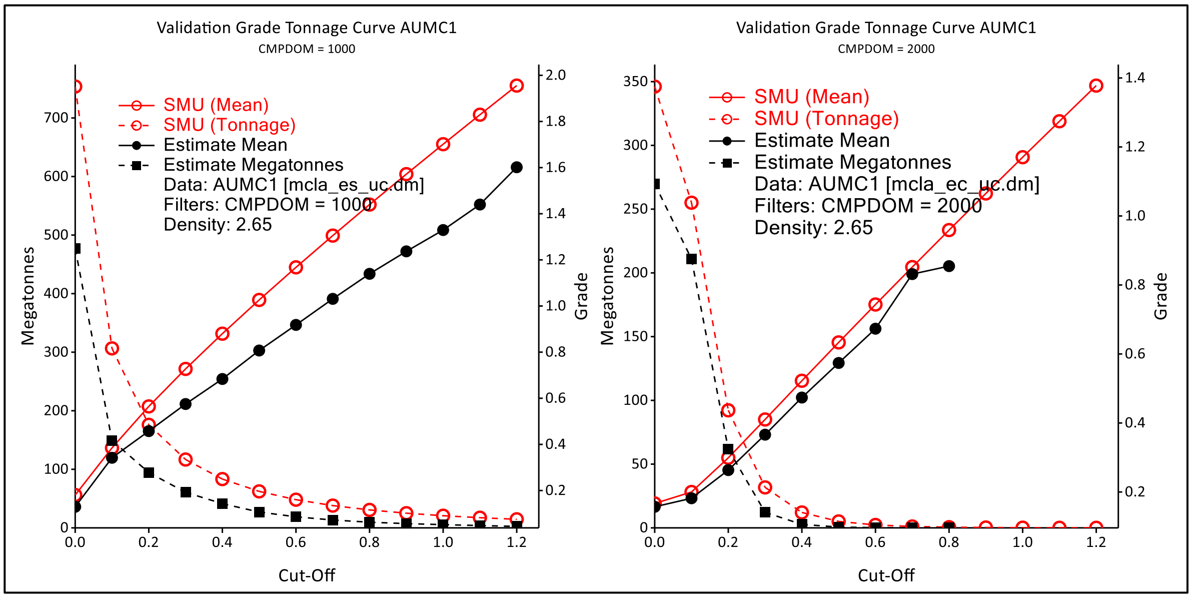

Figure 37: Global change of support validation of average MC1 gold grades in panels, with Esperança South on the left and Esperança Center on the right

Total tonnages and grades over the cut-offs were globally validated by comparison of grade-tonnage curves calculated with (UC) estimates, ID^3 estimates and global change of support (GCOS). The results of these comparisons are shown in Figure 38 .

GCOS shown in Figure 38 were obtained by combining GCOS of each individual lithology gold grades, using lithology proportions as factors. GCOS corresponding to each lithology gold grade was obtained using a discrete gaussian model and change of support coefficients calculated with the same parameters used to estimate with UC.

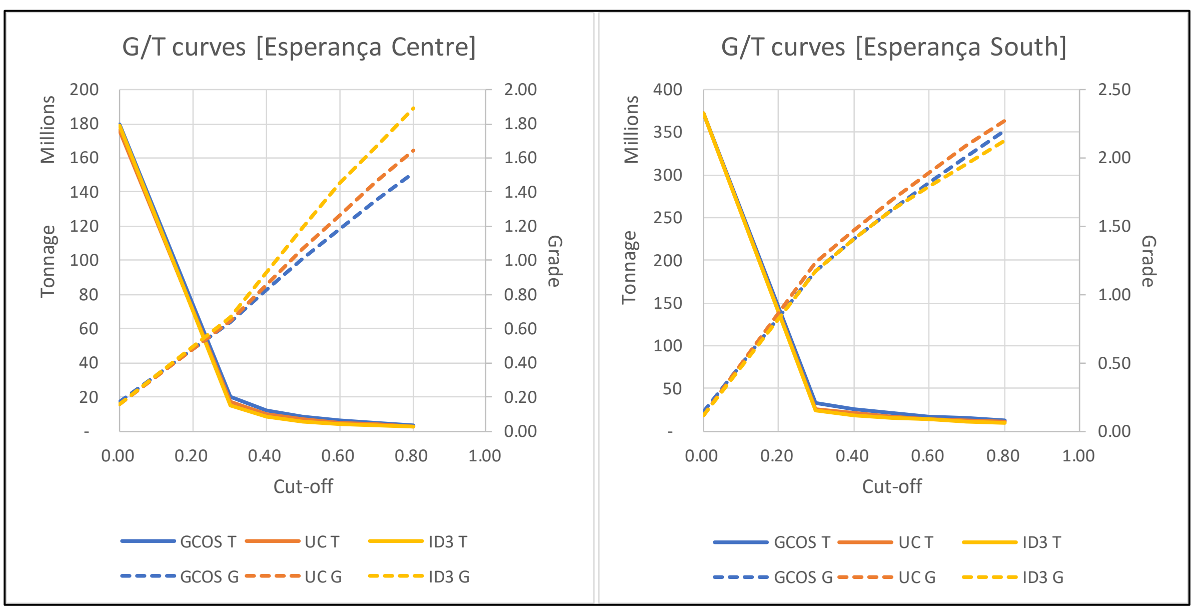

Figure 38: Grade-tonnage curves calculated with UC and compared with GCOS and ID^3 estimates done on SMU-sized blocks

Total tonnages and grades above the 0.4 g/t Au cut-off were visually validated in model sections (Figure 39). To visualize mineralize tonnage, panels were arbitrarily split along the vertical direction into an ore and waste sub-cells with sizes in the vertical direction proportional to its tonnage.

UC results for different cut-offs were also reviewed to ensure the results were mathematically consistent.

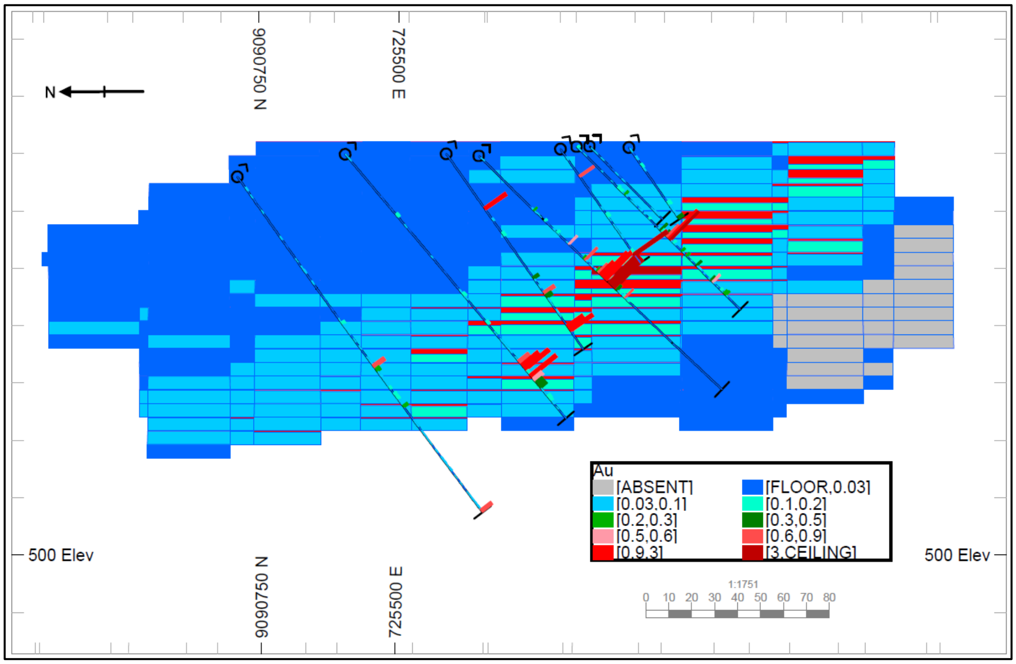

Figure 39: Section showing drillhole gold grades (histograms), SMU proportions above cut-off 0.4 g/t Au (top panel sub-cell) and average grade of the mineralized and waste proportions of the panel

Note: Location of the mineralized and waste proportions within each panel are arbitrary and only may be used for visualization purposes.

14.9 Mineral Resource Classification

All resources to a depth of 120 m below the ground surface, inside the conglomerate band, and within 100 m from drillholes were classified as Inferred; no resources were classified as Measured or Indicated. Current open pit operations in similar paleo-placer projects such as the Tarkwa mine of Gold Fields show that resources down to 120 m below surface have reasonable prospects for eventual economic extraction.

The resource classification definitions used for this estimate are those prepared by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) in their document “CIM Definition Standards” and adopted by CIM Council on 10 May 2014.

Only Inferred Resources were reported; these are defined by CIM as that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes.

Mineral Resources were classified considering a combination of factors such as geological confidence, data quality, sampling spacing and grade variability. CSA Global considers that the non-existence of density measurements and uncertainty in the lithology logging of RC drillhole data reduced the confidence on the resources to the Inferred level.

14.10 Mineral Resource Reporting

Mineral Resources estimated for the Castelo de Sonhos gold project are shown in Table 18. These Mineral Resources have an effective date of 13 September 2017 and were calculated above a reporting cut-off of 0.4 g/t Au. The reporting cut-off corresponds to the approximate marginal cut-off for an open pit with total operating cost (non-waste mining + processing + G&A) of US$15.00/t, metallurgical recovery of 98% and a gold price of US$1,200/oz.

Table 18: Mineral Resource estimate[1] for the Castelo de Sonhos gold project (with an effective date of 13 September 2017) above a reporting cutoff[2] of 0.4 g/t Au

Cut-off[2]	Classification[5]	Tonnage (Mt)	Grade (g/t Au)	Metal content[3] (Moz Au)
0.4	Inferred	31	1.3	1.3

[1] *Numbers have been rounded to reflect the precision of an Inferred Mineral Resource estimate.*

[2] *The reporting cut-off corresponds to the approximate marginal cut-off for an open pit with total operating cost (non-waste mining + processing + G&A) of US$15.00/t, metallurgical recovery of 98% and a gold price of US$1,200/oz. These are Mineral Resources and not Reserves and as such, do not have demonstrated economic viability.*

[3] *The metal content estimates reflect gold in situ, and do not include factors such as external dilution, mining losses and process recovery losses.*

[4] *TriStar and CSA Global are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing or political factors that might materially affect these mineral resource estimates.*

[5] *Resource classification as defined by the Canadian Institute of Mining, Metallurgy and Petroleum in their document "CIM Definition Standards for Mineral Resources and Mineral Reserves" of 10 May 2014.*

Resource sensitivity at different cut-off values for the Castelo de Sonhos gold project are shown in Table 19 and Table 20. Table 19 show the results for the Esperança Center and South combined.

TriStar and CSA Global are not aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing or political factors that might materially affect this Mineral Resource estimate.

Table 19: Sensitivity of tonnage and grade to the reporting cutoff for the Castelo de Sonhos project

Cut-off	Tonnage (Mt)	Grade (g/t Au)	Metal content (Moz Au)
0.3	44	1.0	1.4
0.4	31	1.3	1.3
0.5	24	1.5	1.2
0.6	19	1.7	1.1
0.7	16	1.9	1.0
0.8	14	2.1	1.0

Table 20: Sensitivity of tonnage and grade to the reporting cutoff per mineralized zones

Cut-off	Tonnage (Mt)	Grade (g/t Au)	Metal content (Moz Au)
Esperança Center			
0.3	17.44	0.64	0.36
0.4	10.20	0.86	0.28
0.5	6.76	1.06	0.23
0.6	4.86	1.27	0.20
0.7	3.69	1.46	0.17
0.8	2.91	1.65	0.15
Esperança South			
0.3	26.15	1.24	1.04
0.4	20.67	1.47	0.98
0.5	17.04	1.69	0.92
0.6	14.45	1.89	0.88
0.7	12.49	2.09	0.84
0.8	10.95	2.28	0.80

14.11 Previous Mineral Resources Estimates

The only previous NI 43-101 compliant Mineral Resource estimate for the Castelo de Sonhos gold project was reported in an independent technical report filed on SEDAR by TriStar in September 2014. Table 21 show a comparison of current and previous estimates, both of which were reported using a 0.4 g/t cut-off. The main differences of the current and the 2014 estimates are:

- In 2017, there were more drillholes available and many allowed expanding the mineralized area, as shown in Figure 40.
- The 2014 estimate was based on grade shell that target only high-grade mineralization, drillhole intersections having at least 0.50 g/t gold over 2 m, or 0.40 g/t at 4 m. The interpretation used in 2017 was based on lithology and lower grade zones were included in the estimation.
- In the 2017 estimate, only Inferred Resources were reported, downgrading previously reported Indicated Resources. This was due to uncertainty in density values.

Table 21: Comparison with previous estimates[1]

Year	Million tonnes	Grade	Million ounces
2014[2]	4	2.1	0.3
2017	31	1.3	1.3

[1] *This is not a Mineral Resource statement*

[2] *This mineral inventory is not Mineral Resources. This mineral inventory was compiled from 2014 Resource Estimate for comparison purpose only.*

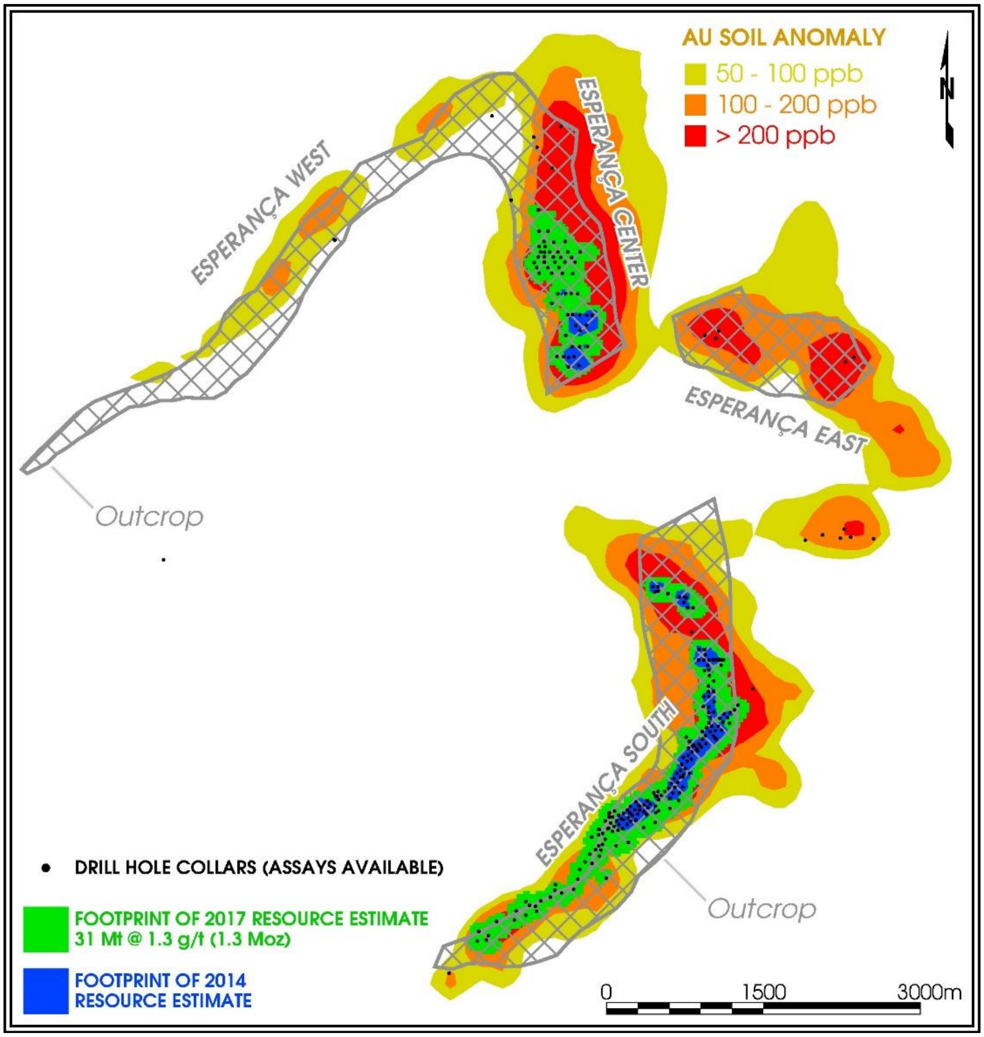

Figure 40: Plan view of the resources estimated in 2014 (blue) and 2017 (green), and drillholes with assays available in 2017 (black)

Source: TriStar Gold internal map, 2017

15 Mineral Reserve Estimates

This section is not applicable to the current Report.

16 Mining Methods

This section is not applicable to the current Report.

17 Recovery Methods

This section is not applicable to the current Report.

18 Project Infrastructure

This section is not applicable to the current Report.

19 Market Studies and Contracts

This section is not applicable to the current Report.

20 Environmental Studies, Permitting and Social or Community Impact

This section is not applicable to the current Report.

21 Capital and Operating Costs

This section is not applicable to the current Report.

22 Economic Analysis

This section is not applicable to the current Report.

23 Adjacent Properties

At the time this Report was prepared, there were no mineral claims or mining operations adjacent to the Castelo de Sonhos gold project.

24 Other Relevant Data and Information

The author of this Report is not aware of any other information about the Project area that has not been disclosed.

25 Interpretation and Conclusions

An updated Mineral Resource estimate has been prepared for the Castelo de Sonhos project located in Pará State, Brazil, following the completion of new drilling in August 2017. The Mineral Resource estimate is base only on RC and diamond drilling completed on 1996 and from 2011 to 2017. New drilling in 2016 and 2017 doubled the number of drillholes in the property and allowed extending the area with Mineral Resources estimated since 2014.

The deposit is interpreted as a modified paleo-placer with gold hosted in metaconglomerates, with some gold remobilization. Alluvial gold exists in conglomeratic rocks, mostly in metaconglomerates supported by pebble (lithology code MC1) and by matrix (MC2). Gold contained in any other lithology within the metaconglomeratic package (lithology code MC0) was interpreted as remobilized.

Lithology domains were modeled as proportions within estimation panels using categorical indicator kriging.

It was assumed that this deposit will be exploited with open pit mining with SMUs of 5 m x 5 m x 2 m. The tonnage proportion and metal content of mineralized SMUs within 30 m x 30 m x 6 m panels were estimated for each one of the lithology classes MC1, MC2 and MC0 using UC. The contribution on tonnage and metal from each lithology was added to obtain the total tonnage and total gold metal content in panels; the average grade was obtained dividing panel metal by panel tonnage. Panels total metal, tonnage and average grades over a 0.4 g/t Au were used to report Mineral Resources as shown in Table 18.

The August 2017 Castelo de Sonhos Mineral Resources are estimated to contain a total of 31 Mt with 1.3 g/t Au at a cut-off 0.4 g/t Au in two zones, Esperança Center and Esperança South. Mineral Resources in Esperança East and West were not estimated.

CSA Global does not envision any significant risk or uncertainty that may be expected to affect the reliability or confidence in the Mineral Resource estimate.

CSA Global is of the opinion that additional exploration is warranted on Castelo de Sonhos project and that TriStar has advanced the Castelo de Sonhos Project to a stage that warrants a Preliminary Economic Assessment.

26 Recommendations

CSA Global recommends:

1. Advancing the project to a Preliminary Economic Assessment. This will require:
    - Additional, predominantly infill, RC drilling in areas of Esperança South and Esperança Center that still have not yet been well drilled. Drill hole spacing would be a staggered 100 x 100 m grid pattern with holes offset by 50m on alternating sections;
    - Dry bulk density measurements on a range of materials, including the major mineralization types as well as the friable sandstone waste in the upper arenite;
    - Additional metallurgical testwork;
    - Initiating environmental and social baseline studies.

    The estimated cost for implementing these recommendations is US$2,500,000.

2. Updating the Mineral Resource estimate once all the assays from the 2017 RC program are available. This update should make use of the information from the OTV optical televiewer and the petrophysical logs, which can improve lithology logging and prediction, and which can also serve as an excellent basis for building a reliable model of the internal stratigraphy of the conglomerate band.

    The estimated cost for implementing this recommendation is US$20,000.

3. Expand the exploration program to areas that have not yet been tested, for example, the conglomerates in the upper arenite, Esperança West and Esperança East, and the dip slope between the ridge line of Esperança South and the ravine to the northwest.

    The estimated cost for implementing this recommendation is US$500,000.

4. Include blank material that is not a pulp material in the external QAQC program, such as a coarse crushed (but not pulverized) quartz gravel.

    The estimated cost for implementing this recommendation is US$5,000.

27 References

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Appendix 1: Variograms

Variogram Models Used for Resource Estimation

Assay	Domain	Orientation	Nugget	Structure 1 (Exp)		Structure 2 (Exp)	
				Sill	Range	Sill	Range
MC1	1000	-25-->310	0.15	0.23	20	0.62	100
		00-->220			20		100
		65-->310			7		30
	2000	-25-->270	0.15	0.28	20	0.57	80
		00-->180			20		80
		65-->270			3		17
MC2	1000	-25-->310	0.15	0.23	20	0.62	100
		00-->220			20		100
		65-->310			7		30
	2000	-25-->270	0.15	0.28	20	0.57	80
		00-->180			20		80
		65-->270			3		17
MC0	1000	-25-->310	0.15	0.23	20	0.62	100
		00-->220			20		100
		65-->310			7		30
	2000	-25-->270	0.15	0.28	20	0.57	80
		00-->180			20		80
		65-->270			3		17
AUMC0	1000	-30-->310	0.22	0.29	20	0.07	99
		00-->220			20		99
		60-->310			7		20
	2000	-30-->270	0.03	0.04	20	0.02	90
		00-->180			20		90
		60-->270			4		10
AUMC1	1000	-30-->310	0.29	0.41	20	0.14	99
		00-->220			20		99
		60-->310			7		30
	2000	-30-->270	0.02	0.03	20	0.02	90
		00-->180			20		90
		60-->270			4		22
AUMC2	1000	-30-->310	0.25	0.32	20	0.08	99
		00-->220			20		99
		60-->310			7		30
	2000	-30-->270	0.08	0.10	20	0.03	90
		00-->180			20		90
		60-->270			4		22

Appendix 2: Glossary of Technical Terms and Abbreviations

3D	Three-dimensional model or data
ANM	*Agência Nacional de Mineraçã* (proposed new Brazilian federal agency to oversee mining)
AFC	AFC Geofisica, a Brazilian petrophysical services company
Au	Gold
azimuth	Drillhole azimuth deviation (from north)
ºC	Celsius degrees
CDS	Castelo de Sonhos
CV	Coefficient of variation. In statistics, the normalized variation value in a sample population
collar	Geographical coordinates of the collar of a drillhole or a working portal
compositing	In sampling and resource estimation, process designed to carry all samples to certain equal length
core sampling	In exploration, a sampling method of obtaining ore or rock samples from a drillhole core for further assay
CSA Global	CSA Global Canada Geosciences Limited
CDF	Cumulative distribution function; the cumulative proportion of a population below various thresholds
cut-off grade	The threshold value in exploration and geological resources estimation above which well mineralized material is reported
DDH	Diamond drillhole
de-clustering	In geostatistics, a procedure allowing bounded grouping of samples within the octant sectors of a search ellipse
DGI	DGI Geoscience, a Toronto-based petrophysical services company
digital terrain model	Three-dimensional wireframe surface model, for example, topography (DTM)
dip	Angle of drilling of a drillhole
DNPM	Departamento Nacional de Produção Mineral (the Brazilian federal agency responsible for mining)
flagging	Coding of cells of the digital model
g	Gram
Ga	Billions of years ago
g/t	Grams per metric tonne
garimpeiro	Brazilian Portuguese term for an small-scale artisanal miner
garimpo	A pit or trench hand-dug by a *garimpeiro*
geochemical sampling	In exploration, the main method of sampling for determination of presence of mineralization. A geochemical sample usually unites fragments of rock chipped with a hammer from drill hole core at a specific interval
GeoLogica	GeoLogica Sondagens Ltda

Geosedna	Geosedna Perfurações Especiais S/A
GRG	Gravity recoverable gold
ha	Hectare
histogram	Diagrammatic representation of data distribution by calculating frequency of occurrence
ID^3	Inverse distance cubed
K	Thousand (10^3)
kg	Kilogram
km	Kilometre
kriging	Method of interpolating grade using variogram parameters associated with the samples' spatial distribution. Kriging estimates grades in untested areas (blocks) such that the variogram parameters are used for optimum weighting of known grades. Kriging weights known grades such that variation of the estimation is minimised, and the standard deviation is equal to zero (based on the model)
lag	The chosen spacing for constructing a variogram
m	Metre
M	Million or mega (10^6)
MCDS	*Mineração Castelo dos Sonhos*, the Brazilian company managing the developing of the Castelo de Sonhos project, 100%-owned by TriStar Gold Inc.
mean	Arithmetic mean
Median	Sample occupying the middle position in a database
MLI	McClelland Laboratories Inc., a Reno-based metallurgical testing laboratory service company
mm	Millimetre
Moz	Million ounces
Mt	Million tonnes
NI 43-101	National Instrument 43-101
nugget effect	Measure of the variability during repeat analysis of a sample due to a measurement error or the presence of natural, small-scale variability. Although the variogram value at 0 spacing should be equal to zero, these factors may affect the values of samples taken at a very short distance from each other such that their values may vary. A vertical jump from the zero value at the origin of a variogram with very small spacing is called the nugget effect
Osisko	Osisko Brasil Mineração Ltda
OTV	Optical televiewer
oz	Ounce
QAQC	Quality assurance and quality control
PAE	*Plano de Aproveitamento Econômico* (Brazilian report that demonstrates technical and economic viability of a proposed mine on a single mineral concession)
Range	Same as Influence Zone; as the spacing between pairs increases, the value of corresponding variogram as a whole also increases. However, the value of the mean square difference between pairs of values does not change from the defined spacing value, and the variogram reaches its plateau. The horizontal spacing at which a variogram reaches its plateau is called the range. Above this spacing there is no correlation between samples

RC	Reverse circulation
RCA	Brazilian environmental control report
RL	Elevation above the sea level, or elevation of the collar of a drill hole, a trench or a pit bench above sea level
RQD	Rock quality designation, a measure of how competent or how broken up a rock sample is
sample	Specimen with analytically determined grade values for the components being studied
scatter plot	Diagrammatic representation of measurement pairs about an orthogonal axis
SEDAR	The System for Electronic Document Analysis and Retrieval maintained by the Canadian Securities Administrators
SEMA	Brazilian federal environmental agency
sill	Variation value at which a variogram reaches a plateau
SIRGAS	The metric geographic coordinate system mandated for use by the Brazilian federal government
SMU	Selective mining unit, the smallest volume of rock that a mine will be able to segregate as ore or waste
standard deviation	Statistical value of data dispersion around the mean value
t	Ton
t/m^3	Tonnes per cubic metre
UTM	Universal Transverse Mercator, the metric geographic coordinate system that serves as a global standard
TriStar	TriStar Gold Inc.
UC	Uniform condition
variation	In statistics, the measure of dispersion around the mean value of a dataset
variogram	Graph showing variability of an element by increasing spacing between samples
variography	The process of constructing a variogram
wireframe model	3D surface defined by triangles
y	Year